Subcontract for the Execution of

Construction works and Installation Materials of Telecommunication for Stara Pazova(exclude)-Novi Sad(exclude)

CRSC INTERNATIONAL CO., LTD. OGRANAK BEOGRAD

AND

ALEKSANDAR ARVAJI PREDUZETNIK USLUGE SISTEMA OBEZBEĐENJA CRVENKA NET CRVENKA

20 May 2021

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THIS SUBCONTRACT is made between:

Party A:

CRSC INTERNATIONAL CO., LTD. OGRANAK BEOGRAD, with the registered seat in Belgrade, Belgrade-Zemun, Majevička 2m, registration no: 29507678, tax identification no: 110760071, legally represented by Mr. Yang Xu, Legal representative of the branch office (hereinafter referred to as: "**Contractor**" or "**Party A**")

and

Party B:

ALEKSANDAR ARVAJI PREDUZETNIK USLUGE SISTEMA OBEZBEĐENJA CRVENKA NET CRVENKA, duly incorporated pursuant to the law of the Republic of Serbia, having its registered office and principal place of business at Crvenka, 25220, Petra Drapšina 7, Serbia, registration no: 56451480, TIN no: 103640557, represented by Aleksandar Arvaji, legal representative (hereinafter referred to as: "**Party B**" or "**Subcontractor**")

Whereas:

On January 22, 2021 the government of the Republic of Serbia, Infrastructure of Serbian Railways JSC (hereinafter referred to as: "**Employer**") and Joint venture of China Railway international Co., Ltd. and China Communications Construction Company Ltd. (hereinafter referred to as **"Main Contractor"**) entered into the Annex 3 of the Commercial Contract on modernization and reconstruction of Hungarian-Serbian Railway connection in the territory of the Republic of Serbia, for section Belgrade Center - Stara Pazova (hereinafter referred to as: "**Main Contract"**) relating the project of modernization, reconstruction and construction of railway line on the sections of Belgrade-Budapest railway line, in particular, section Stara Pazova - Novi Sad (hereinafter referred to as "**Main Contract Works**"), in Serbia (hereinafter referred to as "**Country**"), and the Main Contractor consigned the Signalling and Communication construction works (hereinafter referred to as "**Contract Works**") and is entering the contract in this regard (hereinafter referred to as "**Contract**") to **Party A**;

1. **Party A** is authorized to undertake all the execution of the Subcontract Works;

Party A, desire to engage Party B to carry out the installation of signal telecommunication network and procurement of pipes as specified in the Appendix 1 for Indjija Station, Beska

Station, Sremski Karlovci Station, Petrovaradin Station, Karlovacki Vinogradi Station, Critical locations, EVP, PSN and PS Facilities, Open Green Field BTS,Cortanovci Tunnel,Building No4 above the underpass in Sremski Karlovci, which include but not limited:

(1) Procurement of cable troughs, pipes, wire boxes and sporadic installation materials as agreed in the Appendix 1;

(2) Wall slotting and recovery, cable trays installation, pipes embedding;

(3) IP network optical cable laying, network and other cable wiring;

(4) Cabinet installation, equipment installation, and wiring of communication subsystems.

(5) Installation measurement, cable measurement and coordinate with commissioning. (works described herein shall be jointly referred to as "the Subcontract Works").

Party B is willing, and has the qualification and ability to undertake and complete the said Subcontract Works according to the requirements of Party A envisaged under this Subcontract to provide relevant materials and technical support, and to carry out the defect repair, quality assurance and other work.

Party A and **Party B** have entered into a Subcontract (hereinafter referred to as the "Subcontract") in Belgrade on March the 10th of 2021 after friendly consultation. The terms and conditions are set forth as follows for both parties to comply with.

Article 1 Definition

Unless otherwise required by the Subcontract, the following terms mentioned in this Subcontract have the following meanings:

1.1 **"Day", "month" and "year" :**respectively refer to the Gregorian calendar day, Gregorian calendar month and Gregorian calendar year that are generally applicable to the general industry as stipulated in the laws and regulations of The Republic of Serbia.

1.2 **"Party A":** Party A of this Subcontract, namely the **CRSC INTERNATIONAL CO., LTD. OGRANAK BEOGRAD**.

1.3 **"Party B":** means the service implementation provider of this Subcontract, which refers to the entity accepted by Party A who is qualified to and will provide services under this Subcontract, namely **ALEKSANDAR ARVAJI PREDUZETNIK USLUGE SISTEMA OBEZBEĐENJA CRVENKA NET CRVENKA**, duly incorporated pursuant to the law of the Republic of Serbia, having its registered office and principal

place of business at Crvenka, 25220, Petra Drapšina 7, Serbia, registration no: 56451480, TIN no: 103640557.

1.4 **"Employer":** means the Joint Stock Company for Public Railway Infrastructure Management "Infrastructure of Serbian Railways", Belgrade and its successors and/or its authorized representative(s), hereinafter referred to as JSC.

1.5 **"Main Contract":** means the Annex 3 of the Commercial Contract on modernization and reconstruction of Hungarian-Serbian Railway connection in the territory of the Republic of Serbia, for section Stara Pazova - Novi Sad, signed by and between the government of the Republic of Serbia, Infrastructure of Serbian Railways JSC and joint venture of China Railway international Co., Ltd. and China Communications Construction Company Ltd on January 22, 2021 in Belgrade.

1.6 **"Subcontract Works":**Refers to the provisions of "The Priced Bill of Quantities" (Appendix 1), to execute the materials supply, installation of the telecommunication construction works at Indjija Station, Beska Station, Sremski Karlovci Station, Petrovaradin Station, Karlovacki Vinogradi Station, Critical locations, EVP, PSN and PS Facilities, Open Green Field BTS,Cortanovci Tunnel,Building No4 above the underpass in Sremski Karlovci along the Railway Line between Stara Pazova station (excluded)--Novi Sad (excluded) Section which including the "Subcontract Works" as stipulated in the Recitals, Its contents include but are not limited to the specified materials and installation, temporary operation and technical support provided after final inspection and delivery for the implementation of the items in the "bill of quantities and prices" and/or the additional specified materials and installation that may be required by the Employer per Appendix 1,but which must specially agreed between Party A and Party B, and subject to Party B consent. The specific contents are limited to the provisions of this Subcontract.

1.7 **"Subcontract"**: means this Subcontract, namely the Subcontract signed by Party A and Party B for the execution of the Subcontract Works consisting of the Subcontract and its Appendixes, which represent integral part of the Subcontract.

1.8 **"Defect Liability Period"**: period of 2 (two) year from the date of the acceptance as per the Clause 12.3.1 hereof of the Subcontract Works is issued for each station or section covered by the Subcontract Works, whereas it is issued separately for each station or section covered by the Subcontract Works.

1.9 **"Project":** means the Project on modernization and reconstruction of Hungarian-Serbian Railway connection in the territory of the Republic of Serbia, for section Stara Pazova – Novi Sad.

1.12"Site": means Indjija Station, Beska Station, Sremski Karlovci Station, Petrovaradin Station, Karlovacki Vinogradi Station, Critical locations, EVP, PSN and PS Facilities, Open Green Field BTS,Cortanovci Tunnel,Building No4 above the underpass in Sremski Karlovci.

1.14 "Technical standards": means railway communication and signal technical standards which are specified in detail in the Appendix 1, and any modification or addition to such standards as may be confirmed in writing by both parties.

1.16 "Written form" or "writing": means all kinds of written notices, letters, minutes, entrustments and other forms of tangible expression, including but not limited to handwritten, printed, telegram, fax, picture, e-mail, etc.

1.17 "Tax": means any and all taxes and fees, including but not limited to income tax, withholding tax, value added tax, sales tax, or similar tax, stamp tax, customs, fiscal expense and other dues according to their current or future or any governmental authorities or imposed by any laws or regulations imposed similar fees associated with the tax in the Republic of Serbia.

Article 2 General Provisions

2.1 Party A intends to subcontract the Subcontract Works to Party B. Party A will fully fulfill its obligations defined in the Subcontract to ensure due rights and interests of Party B.

2.2 Party B sufficiently understands the content and situation of the Subcontract Works.. Party B is willing to abide by and perform all responsibilities and obligations related to the Subcontract Works and Appendix 1, as defined, unless otherwise requested by the Employer (in which case the Party A and Party B shall enter into an annex to the Subcontract in good faith). Party B agrees to execute the Subcontract Works, and is willing to undertake the responsibilities and obligations defined in the Subcontract. In case the qualification of Party B is not fulfilling with the requirement of the law and regulations of Serbia, Party B should obtain the qualification before the corresponding work is commenced; otherwise Party A will have the right to deduct the related work from the Subcontract Work and hand over to a Third Party.

2.3 Based on the above-mentioned conditions, Party A agrees to entrust Party B with the execution of the Subcontract Works and to pay the Subcontract Price according to the actual completion of the workload of the Subcontract Works on monthly basis and the list of the material purchases (material or other equipment purchase by the Party B to be used, installed or otherwise utilized for the Subcontract Works) in terms of the Subcontract.

2.5 Both Parties agree that the Site Representative of Party A is Mr. Marjan Ciric and the Site Representative of Party B is Aleksandar Arvaji.

Article 3 Subcontract Price

3.1 Subcontract Price

The Subcontract price is fixed unit price and adopt fixed exchange rate The Subcontract price is EUR 234,385.33 which is equivalent as per exchange rate of RSD 117.5779 for EUR 1 to RSD 27,558,534.9 (in letters: twenty seven million five hundred fifty-eight thousand five hundred thirty-four point nine dinars)without VAT (if any, VAT will be calculated and paid according to the VAT Law of the Republic of Serbia) as envisaged in the Appendix 1.

Party A's invoice information:

CRSC INTERNATIONAL CO., LTD. OGRANAK BEOGRAD

Majevička 2M, ZEMUN,BEOGRAD

PIB:110760071

Registration no: 29507678

Bank Account details of Party B (**ALEKSANDAR ARVAJI PREDUZETNIK USLUGE SISTEMA OBEZBEĐENJA CRVENKA NET CRVENKA**):

Bank: AIK BANKA a.d. Beograd

Account Number: 105-83099-22

3.2 Specific contents of the Subcontract:

stipulated in The Priced Bill of Quantities (Appendix 1).

Article 4 Subcontracted works Start time and Site

Subcontracted work Start time: After the entry into force of this Subcontract, Party B shall execute the Subcontract immediately after Party A requests Party B to execute the Subcontract according to Appendix 3.

Subcontracted work Site: Indjija Station, Beska Station, Sremski Karlovci Station, Petrovaradin Station, Karlovacki Vinogradi Station, Critical locations, EVP, PSN and PS Facilities, Open Green Field BTS,Cortanovci Tunnel,Building No4 above the underpass in Sremski Karlovci.

Article 5 Composition of the Subcontract

The Subcontract consists of the following documents:

(1) Subcontract

(2) Subcontract Appendix:

Appendix 1: The Priced Bill of Quantities;

Appendix 2: Construction drawings and design documents officially approved by the Employer provided by Party A;

Appendix 3: Time schedule – Dynamic of works;

Appendix 4: Agreement On The Manner Of Implementation Of Proscribed Occupational Safety And Health Measures.

Appendix 5: Offer from Party B

(3) Other Subcontract Documents: written agreement, confirmation letter, memorandum, minutes and other documents reached by both parties during the performance of this Subcontract and expressly designated as Subcontract Document by both Parties.

Article 6 Safety requirements

Party B shall pay attention to production safety, comply with the laws, regulations and requirements on production safety of relevant departments, governments of of the Republic of Serbia, and prevent the occurrence of safety accidents.

Party A has signed the implementation of safety measures and applicable agreements and other documents related to safe production and construction under the project, and Party B shall make reasonable efforts to comply with the requirements set forth in the Subcontract. In case of any violation of the provisions of the Subcontract caused by Party B, Party B shall bear the corresponding responsibilities. Party B shall assist Party A to timely submit relevant materials in accordance with the provisions of the Subcontract.

Article 7 Responsibilities of Party A

7.1 As per the stipulations in the Main Contract regarding the provision of the work site by the Employer to Party A, Party A shall provide to Party B in English or Serbian language technical and design documentation.

7.3Party A shall supervise and check Party B's actual progress, quality and safety situation from time to time. Party A's supervision and inspection shall not relieve Party B from the responsibilities of completing the Subcontract Works according to the requirements in the Subcontract. Party A has the right to request Party B to remedy or rework the parts (works) that fails to meet the Technical Standards or are proven as disqualified, and to demand Party B to replace unqualified materials and equipment delivered by Party B, or demand to replace the ineligible or incompetent personnel of Party B, including Party B's representative. If Party A demands the replacement of Party B's personnel, Party B shall send the competent personnel in position within 14 days, and the handover/replacement time shall be less than 2(two) weeks.

7.4 Party A shall procure that Party B could perform the Subcontract Works in timely and accurate manner. If the Party B could not perform the Subcontract Works due to any issue, which is not attribute to the Party B, the Party B shall not be liable and responsible for such delays and the deadline for finishing the Subcontract Works shall be duly and accordingly extended due to such delays. Also, if any other subcontractor or third party delays to execute works or provide services, or any circumstances not attribute to the Party B occurs, which prevent the Party B to perform the Subcontract Works, the Party B shall not be liable and responsible for such delays and the deadline for finishing the Subcontract Works shall be duly and accordingly extended due to such delays.

7.5Party A shall facilitate the work connection and coordination between Party B and other working parties so that Party B can proceed smoothly according to the Subcontract. Party A shall be main point of contact of Party B for the Subcontract Works and shall be obliged to support Party B and address any questions or clarification delivered by the Party B. However, the Party B will be responsible for coordination with the other parties whose work is closely connected with the work of Party B (such as architecture, civil and power supply), Party A will provide the necessary support.

Article 8 Responsibilities of Party B

8.1 Party B shall meet the European Union standards for works and materials which are in scope of Party B and Serbia's standard specifications and design requirements, the requirements of the owner and / or Party A, and the requirements agreed in Appendix 3 of this Subcontract, abide by the subcontract, and conscientiously execute and complete all the Subcontract Works, all according to the law of the Republic of Serbia.

Party B is obliged to weekly fill the construction logs and submit it to Party A according to Serbian Law for planning and construction and Party A is obliged to verify it at least once per week. Party B shall submit the construction plan based on Appendix 3 and Article 7.1 to Party A in weekly basis and implement it after Party A has approved it. During the execution of this Subcontract, Party B shall be fully liable for the penalty caused by the construction delay of the Subcontract Works and/or suffered by Party A if such delay is fault of the Party B. However, Party B shall not be liable if such delays are occurred due to circumstances out of control of Party B, including, but not limited to, delays of other contractors and subcontractors working on the Site.

Party B is fully responsible for quality of the project, equipment and materials, delivered by Party B by Appendix 1, the safety in construction and the timely completion of the project. Party B shall provide sufficient personnel and construction equipment to meet the needs of simultaneous work in multiple places of construction Site. If Party B is not able to or will not be able to complete the works within the regulated time period, Party A has the right to terminate this Subcontract and nominate other third party company as Subcontractor to fulfil the rest part of the Subcontract Works, and Party B will bear the related cost.

If Party B has to cut the wall due to the work delay attributed by Party B, Party B will be responsible at its own cost, for the restoration of the wall. However, if the Party B has to cut the wall due to fault of any other party, such as, if the other party should have to wait for the Party B, but it performed its work prematurely such that Party B must cut the wall, the Party B shall not bear the costs of the restoration of the wall in such cases.

8.2 Party B should, in compliance with related provisions as stipulated in the Subcontract, take on all the responsibilities of the Subcontract Works, and bear all the relevant risks and responsibilities for works by Appendix 1 in line with this Subcontract.In the execution of the Subcontract works, if Party B's behaviour or negligence causes Party A to breach the Main Contract and/or the Subcontract, or if Party B breaches the Subcontract, Party B should compensate Party A for the losses thus incurred thereafter.

8.3 Party B is obligated to submit monthly to Party A Work Progress Schedule, Progress Payment Application and other forms and documents that may be required by Party A in accordance with this Subcontract to ensure the completion of the Subcontract works as defined in the Appendix 3- Schedule of the subcontract works.Party B shall provide the construction schedule for the next month within the last 5 days of each month according to the"Work Schedule of the subcontract works (Appendix 3)"determined by both parties, and the work schedule for the phased construction period (if necessary) & delivery schedule, and Complete the service arrangement plan corresponding to the above-mentioned stage and time period delivery plan, and strictly implement it after approval by Party A.

8.4 Party B is obligated to abide by the Serbian laws; comply with the administrative rules and regulations of local authorities regarding the traffic around the work site, construction noise, environmental protection and safety and civility in construction, as well as to any other applicable law or regulations in relation to the Subcontract works.

8.5 Party B is obligated to cooperate with and make it convenient for supervision and inspection of the Employer, the Employer's representative and Party A. In the event of exceptional cases or accidents, Party B should immediately notify Party A while taking active and effective remedy measures.

8.6 Party B is obligated to provide and employ on the construction site such skilled, semi-skilled and unskilled employees and workers as is necessary for the proper and timely execution of the Subcontract. Party B shall be responsible for the recruitment, transportation, and accommodation and catering of all employees and workers required for the execution of the Subcontract and for all payments in connection therewith. Party B shall at all times during the progress of the Subcontract use its best endeavors to prevent any unlawful, riotous or disorderly conduct or behaviour by or among its employees and workers. Party B shall compensate Party A for the losses suffered by Party A due to Party B's riots caused by Party B's reasons and related to Subcontract works and Appendix 1.

8.7 Party B should be fully responsible for the safety in executing of construction of the Subcontract works, whereas Party B shall not be responsible for the safety of the Site or any other issue not in control or in charge of the Party B under this Subcontract. Accordingly Party B should set up a sound and necessary safety and security system and accept the safety training by Party A or Employer to ensure personnel safety of its staff, local employees and workers and provide them with the safety equipment and safety protect product to ensure the mentioned people use it correctly. Party A should arrange a safety responsible person for construction Site. Party B should commit itself to avoid of accident occurred and problems and damages arising from the accident. Party B shall bear all legal responsibilities for the acts and consequences of

the staff members responsible for the performance of this Subcontract. Party B shall be responsible for the safety production accidents, traffic accidents and other accidents that occur only in the performance of this Subcontract works and Appendix 1. Party A may cooperate with Laws and regulations deal with the aftermath.

8.8 The Value Added Tax amount calculated according to the related laws is not included in the Subcontract price. Party B, if necessary, shall supply the reasonable corresponding assistance and support relating to the supply of Materials and Execution of the Works under the Subcontract, as soon as Party A require and intend to apply for the CIT and/or VAT exemption for material and works defined in this Subcontract for material and works defined in Appendix 1 and this Subcontract, credit and refund, according to Serbian laws and regulations, and mutual treaties, agreement, MOU and policies on the projects and investment between Chinese-Serbian governments.

8.9 Party B should not assign the Subcontract Works to any third party without written approval of Party A, which shall not be unreasonably denied or delayed.

8.10 During the execution of the Subcontract, Party B will actively support in the whole process of the coordination with any third party who may affect the smooth implementation of the Subcontract Works. When Party B finds an accident at the construction site or a problem that affects the safety of people,equipment and traffic, it should report to Party A within one hour and in reasonably timely manner after the accident or problem occurs, and take reasonable measures.

8.11 Party B shall be responsible for filling out the project log during Subcontract Works, records of construction process, records of hidden works and retain image data, if any, of the Subcontract Works.

8.12 Party B is responsible for its all personnel on the field and shall arrange the related insurance to the personnel as per the laws and regulations in Serbia. In case of any accidents happened to the personnel of Party B on site, Party A would be indemnified from any legal result and financial loss accordingly.

8.13 Party B shall be responsible for the correct installation, and cooperating the related equipment supplier during the equipment test and commissioning.

8.14 Party B shall be responsible for the storage and transportation of equipment and materials to the Site, which are only provided by Party B in Appendix 1.

Party A shall be responsible to procure security of the performed Subcontract Works, including, but not limited to, installed materials and equipment, to avoid damage to the Subcontract Works.

The Party B shall not be obliged and responsible to provide any type of security or other safety of the performed Subcontract Works and installed materials and equipment under this Subcontract. In case that any performed Subcontract Works or installed equipment and materials under this Subcontract are damaged, stolen, or otherwise negatively affected, due to any reason which is not fault of the Party B, the Party A could request from Party B to remedy such damage, in which case the Party B shall be compensated for such additional works, as per unit price, and which price shall not be included in the Subcontract Price, but shall be added to the Subcontract Price and shall be additional to the Subcontract Price (i.e. Subcontract Price shall be increased for such price, even though the Subcontract Price is fixed unit price).

In case of damages to the Subcontract Works caused by any subcontractors at this Project or any third party on the Site, the Party B is obliged to make repair to these damages as instructed by Party A, and Party A will compensate the Party B for the complete costs of Party B during such repair; if such repairs could be performed based on prices available in the Appendix 1, the prices of the Appendix 1 shall be applicable. For the avoidance of doubt, the Subcontract Price shall be increased for this compensation, regardless of the Subcontract Price being fixed unit price.

8.15 In case the Subcontractor, during geological investigation and other earth works determine existence of archaeological settlement, necropolis or other objects of archaeological significance,he is obliged to immediately cease further works, secure the site from damage or usurpation and immediately inform Engineer. If such case occurs and the works are suspended, the deadline for provision of Services by Party B's shall be extended for the period of the duration of work seizure or longer if requested by Party B.

8.16 All fossil remains,coins,valuable items and antiques, structures and other remains or items of geological or archaeological interest which are found at the construction site shall be handed over to the Party A for safe keeping and disposal. The Party B is obliged to undertake reasonable measures to prevent removal or destruction of those findings by the Party B's staff or other persons. Upon discovery of such items, Party B is obliged to notify the Party A immediately thereof, and then the Party A shall order further procedures with those items. Upon receipt of further notifications in relation to the this clause, Party A shall act in line with this Subcontract in order to agree or determine those issues.

8.17 The Party B undertakes that during the execution of Subcontract Works shall execute the works in accordance with the Law on Cultural Heritage.

8.18 The Party B will be responsible for making the as-built drawing related to the subcontract work (if any).

Article 9 Materials and equipment

9.1 Materials and equipment provided by Party B

9.1.1Party B shall be responsible for the purchase, transportation and storage of the materials and equipment within the scope of responsibility of Party B during the implementation of this Subcontract for Appendix 1. The purchasing behavior and technical requirements of Party B shall comply with the relevant provisions of the Offer accepted (Appendix 5). Party B shall be obliged to be responsible for the quality of the purchased materials and equipment. Materials and equipment that need to be licensed or certified must be licensed or certified . Party A shall supervise and inspect the purchase, supply and acceptance of the materials purchased by Party B. if the progress of Party B's purchase of materials and equipment fails to meet the needs of the project according to accepted Offer, Party A shall have the right to claim compensation from Party B.

9.1.2 Party B shall submit the supplier, variety, specification, quantity and delivery time of all materials and equipment to Party A for approval. Prior to the installation of the materials and equipment, Party B shall be obliged to submit certificates, certificates of origin of the materials and equipment and other documents to Party A in accordance with the laws and regulations of the Republic of Serbia, Party B shall be obliged to submit it to Party A and/or to the supervisor. And meet the quality standards stipulated in the Offer submitted, and accept the inspection and guidance of Party A on the procurement of materials, equipment and materials related to the quality and safety of the project.

In case of any problems with the materials and equipment supplied by Party B, Party B shall replace or repair the materials and equipment supplied by Party B within 24 hours (if requested by the Employer) but not later than 48 hours and ensure that the Subcontract Works meet Technical Standards.

9.1.3 For the materials and engineering equipment provided by Party B, Party B shall accept the supervision, inspection and acceptance of delivery by the employer, the supervisor, the official institutions of Serbia and Party A. Party B shall provide certificate of conformity of the materials and the certificate of conformity of the product and other necessary certificates and carry out the sampling inspection of the materials and the inspection and testing of the engineering equipment in accordance with the Contract and the instructions of the supervisor.

9.1.4 Party B shall guarantee the quality of materials and equipment purchased for the project for equipment delivered by Party B according to Appendix 1, and shall not purchase or use unqualified materials and equipment which do not meet Technical Standards. In case that

the materials and equipment, which do not meet the Technical Standards, are used, the Party B shall replace and repair them at its own cost.

The cap of penalty is 0.2 % per day of delay or maximum5%, based on schedules from Appendix 3, of subcontract price of the unqualified material delivered by Party B according to Appendix 1. Party A is also obligated to replace and install the qualified material delivered by Party B according to Appendix 1. free of charge.

9.1.5 Party B shall deal with the purchase, supply, import and export, customs clearance, duty payment, tax exemption, tax refund and other matters in strict accordance with the provisions of the Republic of Serbia and the relevant laws and regulations of the exporting country, and keep all original documents for equipment delivered by Party B according to Appendix 1.

Party B shall bear the risks arising from the installation and commissioning of the machinery and equipment, accessories and materials involved in this Subcontract Works. In case that any damage is caused to Party A at fault of Party B during installation and commissioning of the machinery and equipment, accessories and materials involved in this Subcontract, Party B shall compensate for such damage to the Party A.

9.4 Forbidden to use unqualified materials and equipment

9.4.1Party A and the official supervisor of the works under the Main Contract shall have the right to reject the unqualified materials or project equipment which do not meet Technical Standards provided by Party B according to Appendix 1 and request Party B to replace them immediately. Party A and the official supervisor of the works under the Main Contract shall conduct inspection and inspection again after replacement, and Party B shall bear the additional costs and/or delay of the construction period related to such replacement only. If the Party A or the official supervisor of the works under the Main Contract accepts the purchased and installed materials provided by the Party B, it shall be deemed that such materials and equipment meet the Technical Standards, such that no further complaints by the Party A could be made in this respect.

9.4.2 If Party A and the supervisor find that Party B Uses unqualified materials and equipment, they shall immediately issue instructions to Party B to correct immediately and prohibit the continued use of unqualified materials and equipment in the project for equipment delivered by Party B according to Appendix 1.

Article 10 Transportation and Site Cleaning

10.1 Party B shall be obliged to:

(1) Before the delivery of the good/materials which is obligation of Party B by Appendix 1, Party B shall be obliged to submit all necessary documents at least 7 working days in advance to prove that the shipped goods conform to all Technical Standards and quality standards specified in this Subcontract;

(2) Party B or Party A shall notify each other at least 7 working days in advance before any equipment or major goods arrive at the construction site;

(3) Party B shall be responsible for packaging and transportation of materials provided by the Party B to the Site and related to Appendix 1 (and shall comply with the requirements of public transportation of goods stipulated by laws and regulations of the republic of Serbia).

10.2 Site Clearance

In the course of carrying out the Subcontract, Party B shall keep the Site reasonably free from all unnecessary waste, rubbish or remove any surplus materials arising from works of the Party B at the Site, clear away any wreckage, rubbish, plants, from the Site arising from Party B works, and remove any Party B's equipment which which are no longer required for execution of the Subcontract Works.

After Completion of all works under this Subcontract, Party B shall clear away and remove all its wreckage, rubbish and debris of any kind from the Site arising from its Subcontract Works, and shall leave the Site in a reasonably clean and safe condition. Construction debris which are caused and put and line from other parties and other subcontractors are not obligation of Party B.

Article 12 Acceptance

12.1 Completion document

Party A shall provide test and quality plan for all materials and equipment provided by Party A. Party B shall prepare and update a complete set of project completion records at any time for equipment provided by Appendix 1, and truthfully record the exact location, size and detailed description of the work performed. The above completed records shall be kept on Site and shall be used only for the purposes of this paragraph. 4(Four) sets of copies and a copyable electronic version should be submitted to Party A before the completion of the completion test.

12.2 Completion acceptance application report

When the sub-section project or the overall project has the following conditions, Party B shall notify Party A in writing 28 days prior to the completion of the project, and shall be ready to accept the completion acceptance and submit the completion acceptance application report.

(1) Except for the unfinished work and defect repair work to be completed by Party A in the period of defect liability, all the section projects and related work within the scope of the Subcontract, including the test, inspection and acceptance required by the Subcontract are completed;

(2) Completion materials that meet the requirements have been prepared in accordance with the contents and the number of copies agreed in this Subcontract; The content and number of completed materials shall comply with the requirements of Article 12.1 of this Subcontract;

(3) The list of unfinished works and defects repair work and the corresponding construction plan referred to in the article 12.2(1) completed during the defect liability period have been prepared in accordance with Party A's requirements;

(4) Other work that Party A per Appendix 1 requires to complete before completion acceptance;

(5) A list of completion acceptance data submitted by Party A.

12.3 Acceptance

Upon receipt of the completion acceptance application report submitted by Party B in accordance with article 12.2 hereof, Party B shall submit the application report to Party A for examination of all contents and handle the application according to the following:

12.3.1 if Party A considers that the completion acceptance conditions are not met after examination, it shall within 5 working days indicate the work to be done by Party B before issuing the acceptance certificate. After Party B completes all the work contents notified by Party A, it shall submit the completion acceptance application report again until Party A agrees.

12.3.2 If Party A considers that it has completed the acceptance conditions, Party A will submit the project acceptance to the Employer/Committee for Technical Acceptance/Notified Body within 28days after receiving the application for completion acceptance.

12.3.3 Before the expiration of the defect liability, Party B shall actively cooperate with Party A's final acceptance of the overall Project by the Employer. If the project acceptance in this Subcontract fails due to Party B, Party B shall carry out rectification in accordance with the supervision requirements until the acceptance requirements are met.

12.3.4 If the Employer/Committee for Technical Acceptance/Notified Body does not agree to receive the railway stations or sections after acceptance, Party A shall issue instructions according to the acceptance opinion of the Employer/technical acceptance committee/Notified Body, and request Party B to seriously rework or remediate the unqualified project and bear the costs incurred if the faults are caused due to Party B After completing the rework or remedial work of the unqualified project, Party B shall re-submit the application report for completion acceptance, in accordance with the provisions of Items 12.3.1, 12.3.2 and 12.3.3 of this Subcontract, for its works per Appendix 1.

12.3.5 Party A shall organize the transfer of projects in a single section or multiple sections in accordance with the relevant provisions of the transfer of the main contract project, and Party B shall actively cooperate. If the technical acceptance committee fails due to Party B works, Party B shall carry out the rectification in accordance with the requirements of the supervision or technical committee until the requirements are met. After the above-mentioned section or the above part of the project is handed over, Party B shall complete the works of the unfinished project within defect liability period and the completed project listed in the handover certificate issued by the supervisor within the defect liability period.

12.6 Completion clearance

12.7 Evacuation of construction personnel

The Party B shall leave the Site upon Acceptance of the Subcontract Works by the Party A and shall only return in case repairs or other rectification should be performed in line with this Subcontract.

Article 13 Measurement and payment

13.1 Measurement

13.1.1 The measuring units are shown in appendix 1 of this Subcontract.

13.1.2 Measurement basis:

(1) This Subcontract (including supplementary contracts or agreements);

(2) The Appendix 1 of this Subcontract and the actual number of completed projects in the current period confirmed;

(3) Relevant progress and quality documents approved by Party A;

(4) The approved construction drawings and approved optimization designs, manuals;

(5) The Subcontract and the certificate of qualified quality;

(6) Additional and reduced project documents approved by the audit;

13.1.3Measurement cycle: once a month for measurement.

13.2 Payment

13.2.1 Interim payment certificate. The interim payment certificates for deliveries of Party B which are done in accordance with this Subcontract, shall be issued only by Party B and shall include the following items and shall be expressed in the following order in the currency type agreed upon in the subcontract:

(1) Estimated Subcontract value of the projects that have been implemented in the current period and the documents (such as changes, adjustments, etc.) that have been submitted;

(2) The amount is the retention fee of 5% of the value of the Subcontract that has been carried out and the documents of Party B;

(3) The total amount of materials and equipment used for permanent works delivered to the site;

(4) Deductions for materials and equipment for permanent works identified in all previous payment certificates;

(5) Any other increase or deductions payable in accordance with this Subcontract and the main contract;

(6) The increase or deduction caused by the implementation of the regulations issued by Party A.

Party A shall complete the verification in 7 days (including the time for coordinating Party B to modified interim payment certificate, report and accompanying documents) after receiving the interim payment certificate submitted by Party B (submitted at the end of each month), the report and accompanying documents and verify it and submit it to the Employer. It shall be without delay paid to Party B not later than 30days from issuing monthly interim payment certificate and approving from Party A. If the goods or works carried out by Party B do not meet the requirements of this Subcontract, the relevant expenses may be temporarily detained or replaced, and shall be paid to the Party B after Party B completes the rectification or replacement;If Party B has not or has not performed the work or fulfilled its obligations in accordance with this Subcontract, and the supervisor has issued a notice for this purpose, the relevant amount of such work may be temporarily detained until Party B successfully carries out the work or fulfills its obligations.

The payment of the project payment shall be based on the unit prices of this Subcontract. Party B shall pay all taxes (if applicable) and fees payable by it in accordance with the requirements of this Subcontract related to works per Appendix 1.

13.2.2 Advance payment

13.2.2.1 Pay for Advance payment

The advance payment shall be used by Party B to purchase materials, project equipment, construction equipment, temporary facilities, expenses of Party B, and organize the construction team to enter the Site for the construction of the Subcontract project. The advance payment shall be 20% of the total amount of the Subcontract in RSD without VAT.

Within 5(five) working days after Party B submits the guarantee accepted by Party A, Party A shall pay the advance payment stipulated in this Subcontract to Party B. If Party B fails to submit the guarantee, Party A shall not pay the advance payment to Party B. Party B shall submit the guarantee as per 14.3.1. Clause.

13.2.2.2 The advance payment is deducted from the project progress payment. The method of deduction is to deduct 20 % of the bill amount from each interim payment certificate until the full amount of the advance payment is deducted.

13.2.3 Retention

13.2.3.1 The retention fee shall be 5% of the subcontract price. From the each payment period, Party A shall deduct 5% of the amount of interim payment corresponding to the completed project payment certificate from each project payment period and withhold proportionally the retention payment until the total amount of retained retention payment reaches the agreed amount or proportion. The amount of the retention fee shall not include the payment of advance payment or the amount deducted. No interest is allowed.

13.2.3.2 Party A shall, within 28 days upon receipt of 50% of the retention money returned by the Employer, and upon confirmation of Taking-Over Certificate, return 50% of the retention money to Party B in a lump sum .

13.2.3.3 When the Taking-Over Certificate for the works under this Subcontract has been issued and the first half of the Retention Money has been certified for payment by the Party A, the Party A shall agree, upon request of Party B to substitute a guarantee, in the form approved by the Party A, for the second half of the Retention Money. Party B shall ensure that the guarantee is in the amount and currencies of the second half of the Retention Money and is valid and enforceable until the Party B has executed and completed the works and remedied

any defects, as specified in the said Guarantee. On receipt by the Party A of the required guarantee, the Party A shall pay the second half of the Retention Money to Party B.

13.2.3.4 If Party B fails to fulfill the defect liability upon expiration of the defect liability period, Party A shall have the right to detain the remaining amount equal to the amount required for the remaining work, and shall have the right to extend the defect liability period according to the agreement on the extension of the defect liability period until the completion of the remaining work.

13.2.4 Completion settlement

13.2.4.1 Completion Payment Application

After the project receiving certificate is issued, Party B shall submit the completion payment application form to Party A according to the agreed number of copies and the time limit, and provide relevant certification materials. Except as otherwise stipulated in the terms of this Subcontract, the completion payment application form shall include the following contents: the total price of the completion settlement Subcontract, the construction price paid by Party A, the retention money that should be withheld, and the amount of completion payment due.If Party A has any objection to the completion payment application form, Party A has the right to request Party B to make amendments and provide supplementary information. After Party A and Party B have negotiated, Party B shall submit the revised completion payment application form. The revision shall be done in time frame according to tax laws of Republic of Serbia.

13.2.4.2 Completion payment certificate and payment time.

If Party B has any objection to the completion payment certificate signed by Party A, Party A may issue a temporary payment certificate that Party B has agreed to in the completion payment application form. The disputed part shall be handled in accordance with the provisions of Article 24;

13.2.5 Final settlement

13.2.5.1 Final settlement application form

(1) After the issuance of the defect liability period completion certificate, Party B shall submit the final settlement application form to Party A(based on form which is defined firstly by Party A) according to the number of copies and the time limit stipulated in the Subcontract terms, and provide relevant certification materials.

(2) If Party A has any objection to the content of the final settlement application form (based on form which is defined firstly by Party A), Party A shall have the right to request Party B to

make amendments and provide supplementary information, and Party B shall submit the revised final settlement application form to Party A. If Party A does not deliver any objection within 14 days, this shall mean that Party A has no objections.

13.2.5.2 Final settlement certificate and payment time. Party A shall pay to Party B the final settlement within 45 days after . Party A review or confirm or request Party B to supplement other materials within 21 days after receiving the application for final payment certificate submitted by Party B.

Article 14 Performance Guarantee

14.3.1 Party B shall submit a market standard performance guarantee to Party A within 28 days after the Subcontract is signed by authorized signatories of all Parties, stamped with corporate seals. The specific form of guarantee shall be approved by Party A.

14.3.2 The performance guarantee provided by Party B to Party A shall be 10% of the Subcontract Price. The original of performance guarantee shall be kept by Party A. Party B shall bear all the expenses required for the above guarantee.

14.3.3 The performance guarantee provided by Party B to Party A shall remain valid from the signing of this Subcontract until all works completed by Party B in line with the Clause 12.3.1, and before the commencement of the Defect Liability Period Party A will return the performance guarantee to Party B within 28 days after the taking-over certificate is issued.

14.3.4 The bank issuing the guarantee must be a world-class bank or a local bank approved by Party A. All bank guarantees referred to under this section must have a clause stating that they are irrevocable unconditional demand guarantees. If the deadline of the completion of the Subcontract Works or the notification period of defects is extended, then Party B is obliged to extend the bank guarantee under this Subcontract.

Article 15 Alteration of Subcontract

15.1 In case of any alteration of the Subcontract Works during the execution of this Subcontract, both parties shall have the right to apply for alteration of this Subcontract. The modification shall come into force after friendly negotiation by both parties and signature and seal by both parties.

15.2 Party B shall not alter the original project design during construction. Party B shall bear the expenses incurred by Party B in changing the design without authorization and all losses of Party A caused thereby.

15.3Party B shall not have the right to demand additional service remuneration for project changes in Subcontract Works which were not approved by Party A in Written Form.

15.4 During the performance of this subcontract, Party A shall have the right to transfer all rights, obligations and responsibilities of Party A in this subcontract to a third party, and Party B shall cooperate unconditionally. In relation to Law of The Republic of Serbia. Charges and costs for these changes will be borne by Party A, if any.

Article 16 Defect liability and warranty

16.1 The Commencing Date of the Defect Liability Period

Defect liability period refers to the period during which Party B of the project undertakes the obligation of defect repair as agreed herein. The period shall be 2 (two) year from the date of the acceptance as per the Clause 12.3.1 hereof of the Subcontract Works is issued for each station or section covered by the Subcontract Works, whereas it is issued separately for each station or section covered by the Subcontract Works.

16.2 Party B shall, within the Defect Liability Period, assume the same defect liability as stipulated in the main contract for the works already delivered, subject to this Subcontract. During the liability period for defects, Party B shall not only complete the unfinished work items listed in the handover certificate in line with the Clause 12.3.1 hereof, but also repair any defects that occur related to works per Appendix 1 duly notified to the Party B by Party A. Party B shall bear the expenses for defects caused by Party B.

16.3 During the Defect Liability Period, the Employer shall be responsible for the daily maintenance of the works that have been received and used, including Subcontract Works. In the process of use, if the Employer finds any new defect or damage to the repaired defect parts or parts caused by Party B in the received Subcontract Works, Party B shall be responsible for the repair during the Defect Liability Period upon being duly notified by the Party A, but only for the issues in the Subcontract Works which could be attributed to the fault of the Party B.

16.4 Party A may provide supplementary changes design documents and notices within the scope of this Subcontract in order to ensure the correct implementation of this project or to complete the repair of its defects which must be duly notified to the Party B in writing at the latest 14 days before being implemented. Party B and Party A shall agree mutually about

changes and new price level, and execute works for the supplementary changes design documents and notices upon mutual agreement between Party A and Party B.

16.5 Party A and Party B shall jointly investigate the causes of defects and/or damages of the Subcontract Works. Party B shall bear the cost of repair and inspection if it is found to be caused by Party B. If the inspection is not caused by Party B, Party A shall negotiate with the Employer to bear the costs of repair and inspection, and pay a reasonable fee to Party B after obtaining the relevant costs from the Employer.

16.6 extension of defect liability period

When Party B causes a defect or damage in the Subcontract Works that results in the impossibility on certain work or equipment to be used, and they need to be re-checked, inspected and repaired, and provided that the defects liability period is extended as per the main contract for the Subcontract Works only (in other words, if the defects liability period has not been extended due to Subcontract Works this clause shall not be applied), Party A is entitled to request Party B to extend the defects liability period accordingly; however, the longest extension of the defects liability period will not be more than 2 (two) years as of the relevant repair or other relevant action of the relevant Subcontract Works performed by the Party B, but in any case shall not be longer than the defect liability period regulated in the Main Contract on the extension of the Subcontract Works related to the Subcontract.

16.7 During the Defect Liability Period, in order to ensure the safety of railway transportation and restore the normal operation of the line in time, if any quality accident or problem occurs caused by Party B installations per Appendix 1 and documents per Article 7.1 after the completion of the construction project and requires rework and repair, Party A shall notify Party B in writing to repair it, and Party B shall start to repair it on the site within 7 days after receiving the notice, and the repair cost shall be borne by the responsible party. If Party B fails to arrive at the site for repair within 7 days, Party A may entrust other units to repair and timely notify Party B, and Party B shall pay the necessary expenses in time.

Article 17 Cooperate with construction

Party B shall cooperate with Party A to carry out acceptance inspection of its Subcontract Works. Party B shall cooperate with Party A or a third party in the Site when the work of Party A or a third party must be cooperated by Party B.

Article 18 Liquidated damages

If the mutual consent on the schedule of progress cannot be concluded within 3 (three) months, and Party A considers that the progress of the subcontract work already put a seriously negative implications to the overall progress of the Project, Party A shall have the right to unilaterally handover the partial equipment or services under this subcontract to a third Party, and the reasonable cost increased accordingly shall be borne by Party B, only for damages caused by Party B and if Party A has losses towards Employer based on it.

.Unless otherwise stipulated in the Subcontract, if the service is not completed on time due to Party B's fault, Party A may deduct the actual damage suffered due to such delay from the amount payable to Party B, or Party B may pay the claimed actual damages through other means, only for damages caused by Party B and if Party A has losses towards Employer based on it.. If the amount payable to Party B by Party A is insufficient to cover the compensation that Party B should pay to Party A, Party A has the right to claim the difference to the total amount of the actual damage suffered from Party B in line with this clause.

Party A reserves the right to recover Party B for actual damage suffered by Party B's performance of this Subcontract subject to this Subcontract. Party A has the right to reduce or pay the remaining project payment of Party B, and has the right to request Party B to return the project payment already received, or Party B to pay by other means, only for damages caused by Party B and if Party A has losses towards Employer based on it.

Article 19 Assignment and subcontracting

Party B shall have right to transfer rights, interests, responsibilities or obligations in the Subcontract, of the supply and/or services to a third party in whole scope of works only with written approval of Party A.

Article 21 Liability for breach of Subcontract

21.1 Party B defaults

21.1.1 Case of Party B's breach of Subcontract

The following circumstances that occurred during the performance of the Subcontract:

(1) Party B violates the provisions of Articles 8 and 19 of this Subcontract, and transfers all or part of the rights of the Subcontract to other persons, or transfers all or part of the Subcontract's obligations to others without consent of the Party B;

(2) Party B violates the provisions of Article 9 of this Subcontract and, without the approval of Party A, privately removes the construction equipment, temporary facilities or materials that have entered the Site according to the Subcontract;

(3) Party B violates the provisions of Article 9 of this Subcontract by using unqualified materials or project equipment which do not meet Technical Standards, the quality of the Subcontract Works does not meet the Technical Standards, or refuses to remove the material and equipment of the Subcontract Works which do not meet the Technical Standards;

(4) Party B failed to complete the Subcontract Works in time according to the work schedule (Appendix 3) and / or Party A's notice, causing or expected delays in the construction period;

(5) During the Defect Liability Period, Party B failed to repair the defects in the list of defects listed in the Subcontract Works receiving certificate or defects during the Defect Liability Period, and refused to repair it according to the instructions of Party A;

(6) Party B cannot continue to perform or expressly indicates that it has failed to perform or has substantially ceased to perform the Subcontract;

(7) Other circumstances in which Party B does not perform its obligations as agreed in the Subcontract.

(8) Due to Party B's reasons for group petitions and adverse effects; or due to Party B's negative reports of news media at all levels (except for deliberate misrepresentation); or due to Party B's failure to implement EIA report, water conservation plan and approval opinions. If the legal liability and the economic punishment responsibility are caused by Party B's reasons and cause reputation and economic losses to Party A, Party B shall be responsible for eliminating the impact, bear the relevant expenses, and compensate Party A for the reputation and economic losses suffered thereby.

21.1.2 Treatment of Party B's default

(1) When Party B has a breach of Subcontract as stipulated in Article 21.1.1(6), Party A may notify Party B to immediately terminate the Subcontract and deal with it according to relevant laws.

(2) If Party B has a breach of Subcontract other than the one specified in Article 21.1.1(6), Party A may issue a notice of rectification to Party B, requesting it to correct within the specified time limit. Party B shall bear the increase in costs and/or delays in the construction period caused by its breach of Subcontract.

(3) Upon inspection, it has been proved that Party B has taken effective measures to correct the breach of Subcontract, and if it has the conditions for resuming work, Party A may issue a resumption of work to notify the reinstatement.

In case the breach of Subcontract due to default of Party B causes breach of contract of Party A to the Employer, Party B shall also bear all losses suffered by Party A as a result.

21.1.3 The Subcontract was terminated due to Party B's breach

After Party A issues a notice of rectification where the issues in the Subcontract Works are duly specified and after 28 days of delivery to the Party B, Party B still does not correct the breach of Subcontract, Party A may issue a notice of termination to Party B. After the Subcontract is terminated in this condition, Party A may send personnel to the construction site to organize personnel or entrust other third Party to construct. Party A shall continue to complete the needs of the project and shall have the right to detain the materials, equipment and temporary facilities on the site of Party B which Party A paid to Party B. However, this action of Party A does not exempt Party B from liability for breach of Subcontract, nor does it affect Party A's claim rights under the Subcontract, and the right of Party B to be compensated for the performed Subcontract Works.

21.1.4 Valuation, payment and settlement after the Subcontract is lifted

(1) After the Subcontract is terminated, Party A shall agree or determine the value of Party B's actual work completed and the value of materials, construction equipment, project equipment and temporary works provided by Party B in accordance with this Subcontract.

(2) After the Subcontract is terminated, Party A shall suspend all payments to Party B and ascertain the amount of each payment and deduction, including the liquidated damages payable by Party B.

(3) After the Subcontract is terminated, Party A shall, in accordance with Article 22 of this Subcontract, direct Party B to claim the loss caused to Party A due to the termination of the Subcontract.

(4) After confirming the above-mentioned payment, the two parties will issue a final settlement payment certificate and settle all the Subcontract payments.

If Party A and Party B fail to reach an agreement on the settlement after the termination of the Subcontract, the dispute shall be handled in accordance with Article 24 of this Subcontract.

21.1.5 Inability or Unwillingness to Remedy an Emergency

If any incident endangering the safety of the project occurs during the implementation period of the project or during the liability period of defects, Party A shall notify Party B to make remedial measures. If Party B declares that it is unable or unwilling to carry out the action immediately, Party A shall have the right to employ other personnel to make remedial measures if Party B is responsible for it according to design documents and Appendix 1If such remedy is the obligation of Party B as agreed herein, Party B shall be liable for the amount and/or delay in construction.

21.2 Party A Breaches the Subcontract

21.2.1 Party A's Breach of Subcontract

Party A shall be deemed to have breached the Subcontract if:

(1) Party A fails to pay the advance payment or the Subcontract price as agreed herein, or delays or refuses to approve the payment application and payment certificate, or causes the payment delay;

(2) Party A is unable to continue to perform or explicitly expresses that it does not perform or substantially stops performing the Subcontract;

(3) Party A fails to perform other obligations agreed herein.

(4) If Party A fails to provide access to any site.

Article 22 Claims and changes

22.4 Party A claims

Within 28 days after the occurrence of the claim thereunder, Party A shall promptly notify Party B in writing of the amount of the claim and/or the specific content. If Party A fails to send a written notice of claim or Party B receives the acceptance certificate within the aforesaid 28 days, Party A will lose the right of claim.

Party A shall determine the amount payable by Party B and/or other relevant action of the Party B. If both parties accept the result of the claim, the amount payable by Party B to Party A may be deducted from the Subcontract price payable by Party A to Party B, or be paid by Party B to Party A separately. If neither Party Accepts the result of the claim, it shall be subject to the provisions of this subcontract on dispute settlement.

Article 23 Limitation of Liability

Neither Party A nor Party B shall be liable for any lost revenue, lost profits or any other consequential, incidental, special, exemplary or other damages suffered by the other party under any part of this agreement, whether or not the possibility of such lost profits or damages has been disclosed to the other party or could have been reasonably foreseen by it. Under no circumstances shall any of the parties, including Party A and Party B, of this Subcontract be liable for any amount in excess of the total amount of remuneration actually received under this Subcontract by the other Party of this Subcontract. The liability of either party is unlimited in case of willful damage.

Article 24 Applicable law and dispute resolution

The laws of the Republic of Serbia shall apply to all disputes arising out of or in connection with this Subcontract, without reference to its conflict of laws rules.

In case of any dispute arising out of or in relation to this Subcontract, the Commercial Court of Belgrade shall have jurisdiction.

Article 25 Force Majeure

25.1 Force majeure refers to the scenario in which include but not limited the contractual obligations of one or both of the Parties are not fulfilled due to force majeure such as earthquakes, curfew, floods, epidemics,war riots, terrorism, nuclear incidents, etc. during the execution of the Subcontract.

25.2 After the occurrence of the force majeure event, the Party affected by Force majeure shall immediately notify the other Party and promptly take measures to reduce the losses as far as possible, and the Parties shall assist each other in taking measures. The Party B should suspend the work when Party A considers necessary or when the Party B cannot perform the Subcontract Works due to Force Majeure. Within 48 hours after the end of the force majeure event, Party B shall notify Party A of the damage and loss, and the estimated cost of cleaning and repair. In case the force majeure event continues to occur, Party B shall notify Party A of the damages and loss every 7 days. Within fourteen (14) days after the end of force majeure, Party B shall submit a formal report and related information on the cleaning and repair costs to Party A.

25.3 A party affected by Force Majeure shall be exempt from liability for breach of Subcontract, but active measures shall be taken to minimize losses to the other party.

25.4 If a party fails to perform the Subcontract in accordance with the various time limits specified in this Subcontract, and force majeure occurs during that period, the party shall not be exempted from liability.

25.5 If, due to force majeure, one party has or will not be able to perform any of its obligations under this Subcontract, the party shall notify the other party of the event or circumstances that constitute force majeure and specify the obligations and work that have been or will not be performed. The party shall give notice within 14 days of the occurrence of the corresponding event or situation that is discovered (or should be discovered) that constitutes force majeure. After the notice is given, the party shall waive the performance of such obligations during the duration of such force majeure.

Article 26 Validity,Suspension and Termination of the Subcontract

26.1 The Subcontract takes effect from the date when the Subcontract is signed by authorized signatories of all Parties, and after cumulative fulfillment of the following conditions

(a) Submission of detailed design documentation by Party A and documents by Article 7.1, necessary for the realization of the Subcontract.

(b) Handing over the construction site.

(c) Mutually signed and agreed Time Schedule in Appendix 3.

(d) Received the performance guarantee that issued by Party B

(e) Party B has received the Advance Payment from Party A in line with the Clause 13.2.2. hereof.

26.2 Suspension

If the Project is suspended or postponed due to public policy changes of the Republic Serbia or other reasons out of control of Party A and Party B, the Subcontract cannot be continued, it shall be deemed to be terminated upon receipt of the written notice of the Party A to Party B or suspended upon receipt of the written notice of the Party A to Party B – if the suspension lasts more than 6 months the Subcontract shall be deemed terminated upon receipt of the written notice sent by one Party to the other. After the termination of the Subcontract, Party B shall properly complete ongoing works that cannot remain unfinished and leave the Site in line with this Subcontract and the handover of purchased materials, equipment protection and the project,

and evacuate the construction machinery and personnel from the site as required by Party A. Party A shall provide necessary conditions for Party B to evacuate the site and pay the completed Subcontract Works and delivered materials with prices as agreed herein in Appendix 1. Meanwhile, Party B shall submit all the completed project materials to Party A, and the Party A shall pay the corresponding Subcontract Price to the Party B.

If Party A considers that the project meets the conditions for resumption of construction after assessment, Party B shall continue to perform the obligations set forth herein as required by Party A in which case all the deadlines and terms for completion of the Subcontract Works shall be extended for the same time period during which the suspension lasted.

26.2 Termination

This Subcontract could be terminated under any of the following circumstances:

(1) after Party A confirms in writing that Party B has not fulfilled all the obligations and responsibilities of Party B in accordance with this Clause 21.1.3 of this Subcontract;

(2) The Subcontract becomes impossible to be executed due to force majeure;

(3) Party A or Party B unilaterally terminates this Subcontract according to relevant provisions hereof;

(4) The Main Contract between the Employer and Party A is cancelled;

(5) Both Parties agree to cancel the Subcontract in written, if signed by the legal representatives or authorized representatives of all parties and sealed by the parties.

(6) Either party commits a material breach of Subcontract and still refuses to perform within a reasonable grace period upon written notice of the non-breaching party;

(7) Either party commits fraud in the execution of the Subcontract;

(8) Either party is bankrupt or insolvent.

The termination of this Subcontract does not relieve either party of the right to claim damages (if any) from the other Party.According to law or this Subcontract and to demand liquidated damages or other liabilities for breach of Subcontract from the other party.

Article 27 Quantity and validity of Subcontract Copies

This Subcontract is made in 6 (six) copies, with Party A holding four (4) copies and Party B'S holding two (2) copies each. This Subcontract shall come into force after it is signed by

the legal representatives or authorized representatives of all parties and sealed by the parties. This Subcontract expires after the parties have fulfilled all obligations (including Defect Liability Period) stipulated in this Subcontract.

This Subcontract may be changed by signing of an Annex to this Subcontract. In order for the Annex to come into force it has to be signed by the legal representatives or authorized representatives of all parties and sealed by the parties.

Article 28 Certificates and documents

Party B shall provide relevant certificates and documents as required by Party A to assist Party A to meet relevant requirements of the Employer for the equipment and materials provided by Party B per Appendix 1.

Article 29 Notice

29.1 All notices, requests, instructions, documents and any other type of communication between the parties shall be made in accordance with the following contact information (contact person, appropriate address/email address, telephone number) :

Party A's Contact Person: Li Zichen

Address: Belgrade-Zemun, Majevička 2m

Email address: crsc.xsxmb@gmail.com

Telephone: +381668879066

Party B's addresses shall be used for the purpose of notification:

Contact person 1: Aleksandar Arvaji

Address: Petra Drapšina 7, 25220 Crvenka

E-mail address: aco@crvenka.net

Telephone: +38163/83-38-212

29.2 All notices, requests, instructions, documents and any other type of communication between the parties hereto shall be in writing.

29.3 Notices and other communications shall be deemed to be delivered to Party B under the following circumstances:

(1) If delivered by registered mail or express, sign the receipt or

(2) In the case of E-mail, when a message appears in the recipient's inbox (received) folder.with an automatic confirmation that the recipient received the email.

29.4 If the contact information mentioned in clause 29.1 is changed, the changed party shall be obliged to notify the other party on the next most recent business day.

For and on behalf of Party A:	**For and on behalf of Party B:**
Mr. Xu Yang Legal Representative of the branch office	Mr. Aleksandar Arvaji Legal Representative

No.	Name	Price(EUR)
05_3_03_02	Indjija	35.426,20
05_3_03_03	Beska	28.359,30
05_3_03_04	Sremski Karlovci	27.719,60
05_3_03_05	Petrovaradin	28.331,50
05_3_03_06	Karlovacki Vinogradi	13.436,30
05_3_03_07	Critical locations-Bridge	2.008,40
05_3_03_07	Critical locations-Location of the measuring point	1.006,85
05_3_03_08	EVP, PSN, PS-EVP INĐIJA	9.155,70
05_3_03_08	EVP, PSN, PS-PSN BEŠKA	6.692,50
05_3_03_08	EVP, PSN, PS-PS SREMSKI KARLOVCI	6.727,50
05_3_03_09	Open Green Field BTS	4.214,40
05_3_03_10	Cortanovci-TUNNEL	21.136,78
05_3_03_10	Cortanovci-OPEN GREEN FIELD BTS LOCATIONS	9.192,00
05_3_03_10	Cortanovci-POWER STATIONS	10.966,20
05_3_03_10	Cortanovci-PUMP STATIONS	2.755,30
05_3_6	Building No4 above the overpass in Sremski Karlovci	27.256,80
	TOTAL:	**234.385,33**

AFFIC INSTITUTE CIP d.o.o.
Nemanjina 6 / IV, 11000 Belgrade

BILL OF QUANTITIES

5/3.3.2 INFORMATION AND COMMUNICATION SYSTEMS - INĐIJA STATION

White	Description of works	Measurement Unut	Quantity	Price unit (EUR)	PRICE (EUR)
			A	B	AxB
NOTE 1. All items relating to material include delivery. 2. The specified types and manufacturers of individual parts of equipment or					
2	**MAIN CABLE ROUTES**				
	Material				
05.03.03.02.02.01	PE pipe Ø 50	m	50	1,00	50,00
05.03.03.02.02.02	Fittings for forking, turning and diameter reduction for PEØ 50 pipes.	pcs	50	2,90	145,00
05.03.03.02.02.03	Perforated shielded sheet steel cable tray. Set with mounting accessories and elements for horizontal and vertical turns and mounting in a suspended ceiling / ceiling, cross section 200mm x 50mm.	m	250	5,15	1.287,50
05.03.03.02.02.04	Self-adhesive plastic ducts without halogen elements dimensions:				
	- 16x16x1000mm	m	30	2,66	79,80
	- 16x40x1000mm	m	30	4,33	129,90
05.03.03.02.02.05	Halogen free installation corrugated hose with all fittings and clamps and clamps (3pcs / 1m), (installation in the building), (Dietzel Univolt FX) or equivalent. Outside diameter:				
	- Ø40	m	2000	0,50	1.000,00
	- Ø36	m	3000	0,33	990,00
	- Ø16	m	2000	0,15	300,00
05.03.03.02.02.06	Installation ribbed hose with all fittings and clamps and clamps (3pcs / 1m), (off-site installation), (Dietzel Univolt FX) or equivalent. Outside diameter:				
	- Ø40	m	100	0,50	50,00
	- Ø36	m	600	0,33	198,00
05.03.03.02.02.07	Procurement and delivery of fire-fighting mixture. Calculated with an average penetration size of 0.3x0.3 m	m²	2	130,00	260,00
05.03.03.02.02.08	Small installation material (bag screws, arc clamps, dowels ...)	set	1	120,00	120,00

	Works				
05.03.03.02.02.09	Laying of PE pipes in the prepared routes with the installation of fittings	m	50	0,30	15,00
05.03.03.02.02.10	Installation of cable racks in the suspended ceiling / on the wall	m	250	0,65	162,50
05.03.03.02.02.11	Installation of self-adhesive plastic channels with all necessary works.	m	60	0,44	26,40
05.03.03.02.02.12	Installation of installation pipes in the wall / ceiling / suspended ceiling / double floor, with wall sealing, hole punching, installation of junction boxes.	m	7000	1,77	12.390,00
05.03.03.02.02.13	Installation of installation pipes in lighting poles and in the canopy	m	700	1,35	945,00
05.03.03.02.02.14	All works on closing the penetration of the installation with fire-fighting mixture (in accordance with the valid regulations) and coating of cables, pipes, ducts, etc. in the length of one meter on each side of the penetration.	m^2	2	125,00	250,00
	TOTAL MAIN CABLE ROUTES:				**18.399,10**
3	**COMMON COMPUTER NETWORK**				
	Cables for common communication network (structured cabling, video surveillance system, clock system)				
05.03.03.02.03.29	PE pipe Ø 40mm for installation of optical cable	m	1450	0,80	1.160,00
05.03.03.02.03.30	Coupling for plastic pipes PE Ø 40mm.	pcs	10	2,00	20,00
05.03.03.02.03.31	Pipe plug PE Ø 40mm	pcs	20	1,88	37,60
	TOTAL cables:				
	Works				
05.03.03.02.03.37	Assembly and installation of 19 "freestanding cabinet 42U with installation and connection of equipment	set	2	125,00	250,00
05.03.03.02.03.38	**Assembly and installation of RO-TK cabinets with installation and connection of equipment**	**set**	**2**	**0,00**	**0,00**
05.03.03.02.03.39	Material, production, laying of foundations, assembly and installation of external cabinet with installation and connection of equipment. With all the necessary material and work to bring it to full functionality and stability	set	6	305,00	1.830,00
05.03.03.02.03.40	**Installation and connection of active network equipment with all necessary equipment**	**set**	**1**	**0,00**	**0,00**
05.03.03.02.03.41	Installation of adapter 45h45mm for installation in the parapet and / or built-in and / or floor socket and / or set complete with mounting module holder	pcs	53	4,00	212,00
05.03.03.02.03.42	Mounting shielded micro socket cat.6a for mounting in a socket for a structured cabling system	pcs	106	1,05	111,30
05.03.03.02.03.43	Installation of a wall-mounted single socket for mounting in a suspended ceiling for IP equipment	pcs	20	1,05	21,00
05.03.03.02.03.44	Mounting a single socket for mounting in an IP equipment enclosure	pcs	88	1,05	92,40
05.03.03.02.03.45	Installation and connection of armored micro socket cat.6a	pcs	108	1,05	113,40
05.03.03.02.03.46	Laying copper cables in already prepared routes	m	11220	0,34	3.814,80

05.03.03.02.03.47	Laying optical cables in already prepared routes	m	1450	0,73	1.058,50
05.03.03.02.03.48	Laying PE pipes in the prepared routes with the installation of couplings and all necessary works	m	1450	0,30	435,00
05.03.03.02.03.49	Testing of copper lines of a common communication network with the development of measurement protocols	set	1	0,00	0,00
05.03.03.02.03.50	Measurements before laying on an optical cable with 8 o. v. (by cable length)	set	1	0,00	0,00
05.03.03.02.03.51	Measurements after laying on an optical cable with 8 o. v. (by cable length)	set	1	0,00	0,00
05.03.03.02.03.52	Final measurements on an optical cable with 8 o. v. with the development of the protocol of final measurements on the optical cable on the measuring section without extensions	set	1	0,00	0,00
05.03.03.02.03.53	Measurements before laying on an optical cable with 24 o. v. (by cable length)	set	1	0,00	0,00
05.03.03.02.03.54	Measurements after laying on an optical cable with 24 o. v. (by cable length)	set	1	0,00	0,00
05.03.03.02.03.55	Final measurements on a 24 o optical cable. v. with the development of the protocol of final measurements on the optical cable on the measuring section without extensions	set	1	0,00	0,00
	TOTAL COMMON COMPUTER NETWORK:				**9.156,00**
4	**VoIP COMMUNICATION SYSTEM**				
05.03.03.02.04.06	Installation of equipment with connection to the performed installation with all necessary equipment	set	1	0,00	0,00
	TOTAL VoIP COMMUNICATION SYSTEM:				**0,00**
5	**VIDEO SECURITY SYSTEM**				
	Works				
05.03.03.02.05.10	Mounting and connecting to the installed box camera installation	pcs	23	0,00	0,00
05.03.03.02.05.11	Mounting and connecting to the installed box camera adapter installation	pcs	17	0,00	0,00
05.03.03.02.05.12	Installation and connection to the installed installation of the dome camera	pcs	40	0,00	0,00
05.03.03.02.05.13	Mounting and connection to the installed installation of the dome camera adapter	pcs	8	0,00	0,00
05.03.03.02.05.14	Installation and connection to the installed workstation installation	pcs	1	0,00	0,00
05.03.03.02.05.15	Mounting and connecting to the installed monitor installation	pcs	2	0,00	0,00
	TOTAL VIDEO SECURITY SYSTEM:				**0,00**
6	**PUBLIC ADDRESS SYSTEM**				
	Works				
05.03.03.02.06.21	Laying cables in already prepared routes.	m	4050	0,51	2.065,50
05.03.03.02.06.22	Installation and connection to the installed installation of the call station and keypad	pcs	1	0,00	0,00
05.03.03.02.06.23	Installation and connection to the installed installation of the ceiling speaker	pcs	24	0,00	0,00
05.03.03.02.06.24	Mounting and connecting to the installed line speaker installation	pcs	22	0,00	0,00

05.03.03.02.06.25	Installation and connection to the installed horn installation	pcs	8	0,00	0,00
05.03.03.02.06.26	Installation and connection to the installed junction box installation	pcs	62	0,00	0,00
05.03.03.02.06.27	Mounting and connection to the installed attenuator installation	pcs	2	0,00	0,00
05.03.03.02.06.28	Installation and connection to the installed network controller installation	pcs	1	0,00	0,00
05.03.03.02.06.29	Mounting and connection to the installed amplifier installation	pcs	4	0,00	0,00
05.03.03.02.06.30	Installation and connection to the installed installation of the Audio / Ethernet network audio module	pcs	1	0,00	0,00
05.03.03.02.06.31	Mounting and connection to the installed installation of the ambient microphone with the bracket	pcs	3	0,00	0,00
05.03.03.02.06.32	Measurement and testing of the performed installation	set	1	0,00	0,00
	TOTAL PUBLIC ADDRESS SYSTEM:				**2.065,50**
7	**CLOCK SYSTEM**				
	Works				
05.03.03.02.07.07	Installation and connection to the performed installation of a one-sided analog secondary clock for indoor installation	pcs	13	0,00	0,00
05.03.03.02.07.08	Installation and connection to the performed installation of a one-sided analog secondary clock for outdoor installation	pcs	1	0,00	0,00
05.03.03.02.07.09	Mounting and connection to the performed installation of a two-way analog secondary clock for outdoor mounting	pcs	5	0,00	0,00
05.03.03.02.07.10	Mounting bracket for one-sided and two-sided clock with a diameter of 30 cm for indoor mounting	pcs	13	0,00	0,00
05.03.03.02.07.11	Mounting brackets for single-sided and double-sided clocks with a diameter of 60 cm for outdoor mounting	pcs	6	0,00	0,00
	TOTAL CLOCK SYSTEM:				**0,00**
8	**INFO BOARD SYSTEM**				
	Works				
05.03.03.02.08.07	Installation and connection to the performed installation of a single-sided panel for indoor installation	pcs	2	0,00	0,00
05.03.03.02.08.08	Installation and connection to the performed installation of a single-sided panel for outdoor installation	pcs	1	0,00	0,00
05.03.03.02.08.09	Installation and connection to the performed installation of a double-sided panel for outdoor installation	pcs	10	0,00	0,00
05.03.03.02.08.10	Mounting brackets for one-sided board	pcs	1	0,00	0,00
05.03.03.02.08.11	Mounting brackets for double-sided board	pcs	5	0,00	0,00
	TOTAL INFO BOARD SYSTEM:				**0,00**

9	**ACCESS CONTROL SYSTEM**				
	Works				
05.03.03.02.09.11	Laying cables in already prepared routes.	m	540	0,34	183,60
05.03.03.02.09.12	**Assembly, assembly and connection to the performed installation of the housing for storing the equipment of the system with the installation and connection of the equipment**	**pcs**	**5**	**0,00**	**0,00**
05.03.03.02.09.13	Installation and connection to the performed installation of the reader	pcs	6	0,00	0,00
05.03.03.02.09.14	Installation and connection to the performed installation of buttons for permanent / temporary unlocking of electromagnetic holders	pcs	12	0,00	0,00
05.03.03.02.09.15	Mounting and connection to the performed installation of the electromagnetic holder	pcs	6	0,00	0,00
05.03.03.02.09.16	Measurement and testing of the performed installation	set	1	0,00	0,00
	TOTAL ACCESS CONTROL SYSTEM:				**183,60**
10	**BURGLAR SIGNALING SYSTEM**				
	Works				
05.03.03.02.10.15	Laying cables in already prepared routes.	m	780,0	0,34	265,20
05.03.03.02.10.16	**Assembly, assembly and connection to the performed installation of the housing for storing the equipment of the system with the installation and connection of the equipment**	**pcs**	**1**	**0,00**	**0,00**
05.03.03.02.10.17	Mounting and connection to the performed installation of the motion sensor	pcs	9	0,00	0,00
05.03.03.02.10.18	Installation and connection to the performed installation of glass breakage detectors	pcs	11	0,00	0,00
05.03.03.02.10.19	Installation and connection to the performed installation of alarm sirens	pcs	6	0,00	0,00
05.03.03.02.10.20	Mounting and connecting to the performed keyboard installation	pcs	6	0,00	0,00
05.03.03.02.10.21	Measurement and testing of the performed installation	set	1	0,00	0,00
	TOTAL BURGLAR SIGNALING SYSTEM:				**265,20**
11	**AUTOMATIC FIRE ALARM SYSTEM**				
	Material				
05.03.03.02.11.16	Halogen free installation corrugated hose with all fittings and clamps and clamps (3pcs / 1m), (installation in the building), (Dietzel Univolt FX) or equivalent. Outside diameter:				
	- Ø40	m	20	0,50	10,00
	- Ø36	m	1200	0,33	396,00
	- Ø16	m	600	0,15	90,00

05.03.03.02.11.17	Self-adhesive plastic ducts without halogen elements dimensions:				
	- 16x16x1000mm	m	20	2,66	53,20
	- 16x40x1000mm	m	30	4,33	129,90
	Works				0,00
05.03.03.02.11.21	**Assembly and installation of cabinets and installation of equipment in the cabinet**	**pcs**	**2**	**0,00**	**0,00**
05.03.03.02.11.22	Installation of installation pipes in the wall / ceiling / suspended ceiling / double floor, with wall sealing, hole punching, installation of junction boxes.	m	1820	1,77	3.221,40
05.03.03.02.11.23	Installation of self-adhesive plastic pipes	m	50	0,44	22,00
05.03.03.02.11.24	Laying cables in already prepared routes.	m	3120	0,34	1.060,80
05.03.03.02.11.25	All works on closing the penetration of the installation with fire-fighting mixture (in accordance with the valid regulations) and coating of cables, pipes, ducts, etc. in the length of one meter on each side of the penetration.	m^2	1	125,00	125,00
05.03.03.02.11.26	**Installation and connection to the installed installation of an addressable fire control panel**	**pcs**	**1**	**0,00**	**0,00**
05.03.03.02.11.27	**Mounting and connection to the installed relay module installation**	**pcs**	**2**	**0,00**	**0,00**
05.03.03.02.11.28	**Installation and connection to the installed battery installation**	**pcs**	**6**	**0,00**	**0,00**
05.03.03.02.11.29	**Installation and connection to the installed installation of the alarm machine**	**pcs**	**2**	**0,00**	**0,00**
05.03.03.02.11.30	**Mounting on the base and connecting to the installed installation of an addressable automatic detector**	**pcs**	**62**	**0,00**	**0,00**
05.03.03.02.11.31	**Installation and connection to the installed installation of a manual addressable detector**	**pcs**	**20**	**0,00**	**0,00**
05.03.03.02.11.32	**Installation and connection to the installed alarm siren installation**	**pcs**	**12**	**0,00**	**0,00**
05.03.03.02.11.33	**Installation and connection to the installed installation of the parallel indicator light**	**pcs**	**22**	**0,00**	**0,00**
05.03.03.02.11.34	**Installation and connection to the installed installation of an additional base for hanging fire detectors on non-standard surfaces (concrete beams, roof structure, uneven walls, ...), with all the necessary material**	**pcs**	**33**	**0,00**	**0,00**
05.03.03.02.11.35	**Measurement and testing of the performed installation**	**set**	**1**	**0,00**	**0,00**
	TOTAL AUTOMATIC FIRE ALARM SYSTEM:				**5.108,30**

12	**SOS SYSTEM**				
	Works				
05.03.03.02.12.08	Laying cables in already prepared routes.	m	90	0,34	30,60
05.03.03.02.12.09	**Assembly, assembly and connection to the performed installation of the central panel**	**pcs**	**1**	**0,00**	**0,00**
05.03.03.02.12.10	Installation and connection to the performed installation of the call-resolution combination	pcs	1	0,00	0,00
05.03.03.02.12.11	Installation and connection to the performed installation of a room signal lamp	pcs	2	0,00	0,00
05.03.03.02.12.12	Installation and connection to the performed installation of the SOS pushbutton complete with mounting equipment	pcs	1	0,00	0,00
05.03.03.02.12.13	Assembly and connection to the performed installation of the junction box	pcs	2	0,00	0,00
05.03.03.02.12.14	Measurement and testing of the performed installation	set	1	0,00	0,00
	TOTAL SOS SYSTEM:				**30,60**
13	**ENVIRONMENTAL MONITORING SYSTEM**				
	Technical room in the station building				
	Works				
05.03.03.02.13.08	Installation and connection of equipment to the performed installation	set	1	0,00	0,00
Building for SS and TT					
	Works				
05.03.03.02.13.17	Installation and connection of equipment to the performed installation	set	1	0,00	0,00
	TOTAL ENVIRONMENTAL MONITORING SYSTEM:				**0,00**
14	**DUAL COMMUNICATION MICROPHONE SYSTEM**				
	Works				
05.03.03.02.14.02	Installation and connection of equipment to the performed installation	set	3	0,00	0,00
	TOTAL MICROPHONE SYSTEM FOR DOUBLE COMMUNICATION:				**0,00**
16	**Introduction of cables owned by Telekom Srbija a.d.**				
	Note: This technical documentation deals only with certain elements of the system, while most are processed with other projects.				
	Material				
05.03.03.02.16.02	Halogen free installation corrugated hose with all fittings and clamps and clamps (3pcs / 1m), (installation in the building), (Dietzel Univolt FX) or equivalent. Outside diameter:				
	- Ø40	m	10	0,50	5,00
	- Ø36	m	50	0,33	16,50
	Works				
05.03.03.02.16.05	Assembly and installation of a built-in cabinet and installation of equipment in the cabinet	pcs	1	63,00	63,00
05.03.03.02.16.06	Installation of installation pipes in the wall / ceiling / suspended ceiling / double floor, with wall sealing, hole punching, installation of junction boxes.	m	60	1,77	106,20

05.03.03.02.16.07	Laying cables in already prepared routes.	m	80	0,34	27,20
05.03.03.02.16.08	**Design and preparation of documentation**	**set**	**1**	**0,00**	**0,00**
	TOTAL INTRODUCTION OF CABLES:				**217,90**
17	**TOTAL SUBREGIONAL STATION EQUIPMENT - COMMOM COMPUTER NETWORK**				
	SUBREGIONAL STATION EQUIPMENT - VIDEO SECURITY SYSTEM				
	Note: The installation is covered in the section on the shared computer network.				
	Works				
05.03.03.02.20.06	**Mount and connect to the installed installation of the recording device**	**pcs**	**8**	**0,00**	**0,00**
	TOTAL SUBREGIONAL STATION EQUIPMENT - VIDEO SECURITY SYSTEM				**0,00**
2	**MAIN CABLE ROUTES**				**18.399,10**
3	**COMMON COMPUTER NETWORK**				**9.156,00**
4	**VoIP COMMUNICATION SYSEM**				**0,00**
5	**VIDEO SECURITY SYSTEM**				**0,00**
6	**ANNOUNCEMENT SYSTEM**				**2.065,50**
7	**HOUR SYSTEM**				**0,00**
8	**INFORMATION TABLE SYSTEM**				**0,00**
9	**ACCESS CONTROL SYSTEM**				**183,60**
10	**BURGLAR SIGNALING SYSTEM**				**265,20**
11	**AUTOMATIC FIRE ALARM SYSTEM**				**5.108,30**
12	**SOS SYSTEM**				**30,60**
13	**ENVIRONMENT MONITORING SYSTEM**				**0,00**
14	**DUAL COMMUNICATION MICROPHONE SYSTEM**				**0,00**
16	**Introduction of cables in ownership of Telekom Srbija a.d**				**217,90**
17	**SUBREGIONAL STATION EQUIPMENT- COMMON COMPUTER NETWORK**				**0,00**
	TOTAL (€):				**35.426,20**

BILL OF QUANTITIES

5 / 3.3.3 INFORMATION AND COMMUNICATION SYSTEMS - BEŠKA STATION

Number	Description of works	Measurement unit	Quantity	Unit price (EUR)	Price (EUR)
			A	B	AxB
NOTE					
2	**MAIN CABLE ROUTES**				
	Material				
05.03.03.03.02.01	PE pipe Ø 50	m	50	1,00	50,00
05.03.03.03.02.02	Fittings for forking, turning and diameter reduction for PEØ 50 pipes.	pcs	50	2,99	149,50
05.03.03.03.02.03	Perforated shielded sheet steel cable tray. Set with mounting accessories and elements for horizontal and vertical turns and mounting in a suspended ceiling / ceiling, cross section 200mm x 50mm.	m	170	5,15	875,50
05.03.03.03.02.04	Perforated sheet steel cable tray. Set with mounting accessories and elements for horizontal and vertical turns and mounting in a double floor, cross section 200mm x 50mm.	m	50	5,15	257,50
05.03.03.03.02.05	Self-adhesive plastic ducts without halogen elements dimensions:				
	- 16x16x1000mm	m	30	2,66	79,80
	- 16x40x1000mm	m	30	4,33	129,90
05.03.03.03.02.06	Halogen free installation corrugated hose with all fittings and clamps and clamps (3pcs / 1m), (installation in the building), (Dietzel Univolt FX) or equivalent. Outside diameter:				
	- Ø40	m	1700	0,50	850,00
	- Ø36	m	2500	0,33	825,00
	- Ø16	m	1700	0,15	255,00
05.03.03.03.02.07	Installation ribbed hose with all fittings and clamps and clamps (3pcs / 1m), (off-site installation), (Dietzel Univolt FX) or equivalent. Outside diameter:				
	- Ø40	m	100	0,50	50,00
	- Ø36	m	200	0,33	66,00
05.03.03.03.02.08	Procurement and delivery of fire-fighting mixture. Calculated with an average penetration size of 0.3x0.3 m	m²	2	130,00	260,00
05.03.03.03.02.09	Small installation material (bag screws, arc clamps, dowels ...)	set	1	120,00	120,00

	Works				
05.03.03.03.02.10	Laying of PE pipes in the prepared routes with the installation of fittings	m	50	0,30	15,00
05.03.03.03.02.11	Installation of cable racks in the suspended ceiling / on the wall	m	170	0,65	110,50
05.03.03.03.02.12	Installation of cable racks in the double floor	m	50	0,65	32,50
05.03.03.03.02.13	Installation of self-adhesive plastic channels with all necessary works.	m	60	0,44	26,40
05.03.03.03.02.14	Installation of installation pipes in the wall / ceiling / suspended ceiling / double floor, with wall sealing, hole punching, installation of junction boxes.	m	5900	1,77	10.443,00
05.03.03.03.02.15	Installation of installation pipes in lighting poles and in the canopy	m	300	1,35	405,00
05.03.03.03.02.16	All works on closing the penetration of the installation with fire-fighting mixture (in accordance with the valid regulations) and coating of cables, pipes, ducts, etc. in the length of one meter on each side of the penetration.	m^2	2	125,00	250,00
	TOTAL MAIN CABLE ROUTES:				**15.250,80**
3	**COMMON COMPUTER NETWORK**				
	Cables for common communication network (structured cabling, video surveillance system, clock system)				
05.03.03.03.03.28	PE pipe Ø 40mm for installation of optical cable	m	700	0,80	560,00
05.03.03.03.03.29	Coupling for plastic pipes PE Ø 40mm.	pcs	10	2,00	20,00
05.03.03.03.03.30	Pipe plug PE Ø 40mm	pcs	10	1,88	18,80
	TOTAL cables:				
	Works				
05.03.03.03.03.36	Assembly and installation of 19 "freestanding cabinet 42U with installation and connection of equipment	set	2	125,00	250,00
05.03.03.03.03.37	**Assembly and installation of RO-TK cabinets with installation and connection of equipment**	**set**	**2**	**0,00**	**0,00**
05.03.03.03.03.38	Material, production, laying of foundations, assembly and installation of external cabinet with installation and connection of equipment. With all the necessary material and work to bring it to full functionality and stability	set	4	305,00	1.220,00
05.03.03.03.03.39	**Installation and connection of active network equipment with all necessary equipment**	**set**	**1**	**0,00**	**0,00**
05.03.03.03.03.40	Installation of adapter 45x45mm for installation in the parapet and / or built-in and / or floor socket and / or set complete with mounting module holder	pcs	35	4,00	140,00
05.03.03.03.03.41	Mounting shielded micro socket cat.6a for mounting in a socket for a structured cabling system	pcs	70	1,05	73,50
05.03.03.03.03.42	Installation of a wall-mounted single socket for mounting in a suspended ceiling for IP equipment	pcs	14	1,05	14,70
05.03.03.03.03.43	Mounting a single socket for mounting in an IP equipment enclosure	pcs	62	1,05	65,10

05.03.03.03.03.44	Installation and connection of armored micro socket cat.6a	pcs	76	1,05	79,80
05.03.03.03.03.45	Laying copper cables in already prepared routes	m	7870	0,34	2.675,80
05.03.03.03.03.46	Laying optical cables in already prepared routes	m	700	0,73	511,00
05.03.03.03.03.47	Laying PE pipes in the prepared routes with the installation of couplings and all necessary works	m	700	0,30	210,00
05.03.03.03.03.48	Testing of copper lines of a common communication network with the development of measurement protocols	set	1	0,00	0,00
05.03.03.03.03.49	Measurements before laying on an optical cable with 8 o. v. (by cable length)	set	1	0,00	0,00
05.03.03.03.03.50	Measurements after laying on an optical cable with 8 o. v. (by cable length)	set	1	0,00	0,00
05.03.03.03.03.51	Final measurements on an optical cable with 8 o. v. with the development of the protocol of final measurements on the optical cable on the measuring section without extensions	set	1	0,00	0,00
05.03.03.03.03.52	Measurements before laying on an optical cable with 24 o. v. (by cable length)	set	1	0,00	0,00
05.03.03.03.03.53	Measurements after laying on an optical cable with 24 o. v. (by cable length)	set	1	0,00	0,00
05.03.03.03.03.54	Final measurements on a 24 o optical cable. v. with the development of the protocol of final measurements on the optical cable on the measuring section without extensions	set	1	0,00	0,00
	TOTAL COMMON COMPUTER NETWORK:				**5.838,70**
4	**VoIP COMMUNICATION SYSTEM**				
05.03.03.03.04.05	Installation of equipment with connection to the performed installation with all necessary equipment	set	1	0,00	0,00
	TOTAL VoIP COMMUNICATION SYSTEM:				**0,00**
5	**VIDEO SECURITY SYSTEM**				
	Works				
05.03.03.03.05.10	**Mounting and connecting to the installed box camera installation**	pcs	16	0,00	0,00
05.03.03.03.05.11	**Mounting and connecting to the installed box camera adapter installation**	pcs	11	0,00	0,00
05.03.03.03.05.12	**Installation and connection to the installed installation of the dome camera**	pcs	35	0,00	0,00
05.03.03.03.05.13	**Mounting and connection to the installed installation of the dome camera adapter**	pcs	8	0,00	0,00
05.03.03.03.05.14	**Installation and connection to the installed workstation installation**	pcs	1	0,00	0,00
05.03.03.03.05.15	**Mounting and connecting to the installed monitor installation**	pcs	2	0,00	0,00
	TOTAL VIDEO SECURITY SYSTEM:				**0,00**

6	**PUBLIC ADDRESS SYSTEM**				
	Works				
05.03.03.03.06.20	Laying cables in already prepared routes.	m	2900	0,51	1.479,00
05.03.03.03.06.21	Installation and connection to the installed installation of the call station and keypad	pcs	1	0,00	0,00
05.03.03.03.06.22	Installation and connection to the installed installation of the ceiling speaker	pcs	14	0,00	0,00
05.03.03.03.06.23	Mounting and connecting to the installed line speaker installation	pcs	8	0,00	0,00
05.03.03.03.06.24	Installation and connection to the installed horn installation	pcs	6	0,00	0,00
05.03.03.03.06.25	Installation and connection to the installed junction box installation	pcs	44	0,00	0,00
05.03.03.03.06.26	Mounting and connection to the installed attenuator installation	pcs	2	0,00	0,00
05.03.03.03.06.27	Installation and connection to the installed network controller installation	pcs	1	0,00	0,00
05.03.03.03.06.28	Mounting and connection to the installed amplifier installation	pcs	3	0,00	0,00
05.03.03.03.06.29	Installation and connection to the installed installation of the Audio / Ethernet network audio module	pcs	1	0,00	0,00
05.03.03.03.06.30	Mounting and connection to the installed installation of the ambient microphone with the bracket	pcs	2	0,00	0,00
05.03.03.03.06.31	Measurement and testing of the performed installation	set	1	0,00	0,00
	TOTAL PUBLIC ADDRESS SYSTEM:				**1.479,00**
7	**CLOCK SYSTEM**				
	Works				
05.03.03.03.07.07	Installation and connection to the performed installation of a one-sided analog secondary clock for indoor installation	pcs	8	0,00	0,00
05.03.03.03.07.08	Installation and connection to the performed installation of a one-sided analog secondary clock for outdoor installation	pcs	1	0,00	0,00
05.03.03.03.07.09	Mounting and connection to the performed installation of a two-way analog secondary clock for outdoor mounting	pcs	2	0,00	0,00
05.03.03.03.07.10	Mounting bracket for one-sided and two-sided clock with a diameter of 30 cm for indoor mounting	pcs	8	0,00	0,00
05.03.03.03.07.11	Mounting brackets for single-sided and double-sided clocks with a diameter of 60 cm for outdoor mounting	pcs	3	0,00	0,00
	TOTAL CLOCK SYSTEM:				**0,00**

8	**INFO BOARD SYSTEM**				
	Works				
05.03.03.03.08.07	Installation and connection to the performed installation of a single-sided panel for indoor installation	pcs	1	0,00	0,00
05.03.03.03.08.08	Installation and connection to the performed installation of a single-sided panel for outdoor installation	pcs	1	0,00	0,00
05.03.03.03.08.09	Installation and connection to the performed installation of a double-sided panel for outdoor installation	pcs	2	0,00	0,00
05.03.03.03.08.10	Mounting brackets for one-sided board	pcs	2	0,00	0,00
05.03.03.03.08.11	Mounting brackets for double-sided board	pcs	2	0,00	0,00
	TOTAL INFO BOARD SYSTEM:				**0,00**
9	**ACCESS CONTROL SYSTEM**				
	Works				
.03.03.09.11	Laying cables in already prepared routes.	m	500	0,34	170,00
05.03.03.03.09.12	**Assembly, installation and connection to the performed installation of the housing for storing the equipment of the system with the installation and connection of the equipment**	**pcs**	**4**	**0,00**	**0,00**
05.03.03.03.09.13	Installation and connection to the performed installation of the reader	pcs	5	0,00	0,00
05.03.03.03.09.14	Installation and connection to the performed installation of buttons for permanent / temporary unlocking of electromagnetic holders	pcs	10	0,00	0,00
05.03.03.03.09.15	Mounting and connection to the performed installation of the electromagnetic holder	pcs	5	0,00	0,00
05.03.03.03.09.16	Measurement and testing of the performed installation	set	1	0,00	0,00
	TOTAL ACCESS CONTROL SYSTEM:				**170,00**
10	**BURGLAR SIGNALING SYSTEM**				
	Works				
.03.03.03.10.15	Laying cables in already prepared routes.	m	800	0,34	272,00
05.03.03.03.10.16	**Assembly, installation and connection to the performed installation of the housing for storing the equipment of the system with the installation and connection of the equipment**	**pcs**	**1**	**0,00**	**0,00**
05.03.03.03.10.17	Mounting and connection to the performed installation of the motion sensor	pcs	8	0,00	0,00
05.03.03.03.10.18	Installation and connection to the performed installation of glass breakage detectors	pcs	9	0,00	0,00
05.03.03.03.10.19	Installation and connection to the performed installation of alarm sirens	pcs	7	0,00	0,00
05.03.03.03.10.20	Mounting and connecting to the performed keyboard installation	pcs	5	0,00	0,00
05.03.03.03.10.21	Measurement and testing of the performed installation	set	1	0,00	0,00
	TOTAL BURGLAR SIGNALING SYSTEM:				**272,00**

11	**AUTOMATIC FIRE ALARM SYSTEM**				
	Material				
05.03.03.03.11.16	Halogen free installation corrugated hose with all fittings and clamps and clamps (3pcs / 1m), (installation in the building), (Dietzel Univolt FX) or equivalent. Outside diameter:				
	- Ø40	m	20	0,50	10,00
	- Ø36	m	1100	0,33	363,00
	- Ø16	m	600	0,15	90,00
05.03.03.03.11.17	Self-adhesive plastic ducts without halogen elements dimensions:				
	- 16x16x1000mm	m	20	2,66	53,20
	- 16x40x1000mm	m	30	4,33	129,90
	Works				
05.03.03.03.11.21	**Assembly and installation of cabinets and installation of equipment in the cabinet**	**pcs**	**2**	**0,00**	**0,00**
05.03.03.03.11.22	Installation of installation pipes in the wall / ceiling / suspended ceiling / double floor, with wall sealing, hole punching, installation of junction boxes.	m	1720	1,77	3.044,40
05.03.03.03.11.23	Installation of self-adhesive plastic pipes	m	50	0,44	22,00
05.03.03.03.11.24	Laying cables in already prepared routes.	m	2300	0,34	782,00
05.03.03.03.11.25	All works on closing the penetration of the installation with fire-fighting mixture (in accordance with the valid regulations) and coating of cables, pipes, ducts, etc. in the length of one meter on each side of the penetration.	m^2	1	125,00	125,00
05.03.03.03.11.26	**Installation and connection to the installed installation of an addressable fire control panel**	**pcs**	**1**	**0,00**	**0,00**
05.03.03.03.11.27	**Mounting and connection to the installed relay module installation**	**pcs**	**2**	**0,00**	**0,00**
05.03.03.03.11.28	**Installation and connection to the installed battery installation**	**pcs**	**4**	**0,00**	**0,00**
05.03.03.03.11.29	**Installation and connection to the installed installation of the alarm machine**	**pcs**	**1**	**0,00**	**0,00**
05.03.03.03.11.30	**Mounting on the base and connecting to the installed installation of an addressable automatic detector**	**pcs**	**54**	**0,00**	**0,00**
05.03.03.03.11.31	**Installation and connection to the installed installation of a manual addressable detector**	**pcs**	**15**	**0,00**	**0,00**
05.03.03.03.11.32	**Installation and connection to the installed alarm siren installation**	**pcs**	**9**	**0,00**	**0,00**
05.03.03.03.11.33	**Installation and connection to the installed installation of the parallel indicator light**	**pcs**	**27**	**0,00**	**0,00**
05.03.03.03.11.34	**Installation and connection to the installed installation of an additional base for hanging fire detectors on non-standard surfaces (concrete beams, roof structure, uneven walls, ...), with all the necessary material**	**pcs**	**32**	**0,00**	**0,00**
05.03.03.03.11.35	**Measurement and testing of the performed installation**	**set**	**1**	**0,00**	**0,00**
	TOTAL AUTOMATIC FIRE ALARM SYSTEM:				**5.163,50**

12	**SOS SYSTEM**				
	Works				
05.03.03.03.12.08	Laying cables in already prepared routes.	m	90	0,34	30,60
05.03.03.03.12.09	Assembly, installation and connection to the performed installation of the central panel	pcs	1	0,00	0,00
05.03.03.03.12.10	Installation and connection to the performed installation of the call-resolution combination	pcs	1	0,00	0,00
05.03.03.03.12.11	Installation and connection to the performed installation of a room signal lamp	pcs	2	0,00	0,00
05.03.03.03.12.12	Installation and connection to the performed installation of the SOS pushbutton complete with mounting equipment	pcs	1	0,00	0,00
05.03.03.03.12.13	Assembly and connection to the performed installation of the junction box	pcs	2	0,00	0,00
05.03.03.03.12.14	Measurement and testing of the performed installation	set	1	0,00	0,00
	TOTAL SOS SYSTEM:				**30,60**
13	**ENVIRONMENTAL MONITORING SYSTEM**				
	Technical room in the station building				
05.03.03.03.13.08	**Works**				
05.03.03.03.13.09	Installation and connection of equipment to the performed installation	set	1	0,00	0,00
Building for SS and TT					
	Works				
05.03.03.03.13.18	Installation and connection of equipment to the performed installation	set	1	0,00	0,00
	TOTAL ENVIRONMENTAL MONITORING SYSTEM:				**0,00**
14	**DUAL COMMUNICATION MICROPHONE SYSTEM**				
	Works				
05.03.03.03.14.02	Installation and connection of equipment to the performed installation	set	2	0,00	0,00
	TOTAL MICROPHONE SYSTEM FOR DOUBLE COMMUNICATION:				**0,00**
16	**Introduction of cables owned by Telekom Srbija a.d.**				
	Material				
05.03.03.03.16.02	Halogen free installation corrugated hose with all fittings and clamps and clamps (3pcs / 1m), (installation in the building), (Dietzel Univolt FX) or equivalent. Outside diameter:				
	- Ø40	m	10	0,50	5,00
	- Ø36	m	50	0,33	16,50
	Works				

05.03.03.03.16.05	**Assembly and installation of a built-in cabinet and installation of equipment in the cabinet**	**pcs**	**1**	**0,00**	**0,00**
05.03.03.03.16.06	Installation of installation pipes in the wall / ceiling / suspended ceiling / double floor, with wall sealing, hole punching, installation of junction boxes.	m	60	1,77	106,20
05.03.03.03.16.07	Laying cables in already prepared routes.	m	80	0,34	27,20
05.03.03.03.16.08	**Design and preparation of documentation**	**set**	**1**	**0,00**	**0,00**
	TOTAL INTRODUCTION OF CABLES:				**154,90**
2	**MAIN CABLE ROUTES**				**15.250,60**
3	**COMMON COMPUTER NETWORK**				**5.838,70**
4	**VoIP COMMUNICATION SYSTEM**				**0,00**
5	**VIDEO SECURITY SYSTEM**				**0,00**
6	**PUBLIC ADDRESS SYSTEM**				**1.479,00**
7	**CLOCK SYSTEM**				**0,00**
8	**INFO BOARD SYSTEM**				**0,00**
9	**ACCESS CONTROL SYSTEM**				**170,00**
10	**BURGLAR SIGNALING SYSTEM**				**27[illegible]0**
11	**AUTOMATIC FIRE ALARM SYSTEM**				**5.163,50**
12	**SOS SYSTEM**				**30,60**
13	**ENVIRONMENTAL MONITORING SYSTEM**				**0,00**
14	**DUAL COMMUNICATION MICROPHONE SYSTEM**				**0,00**
16	**Introduction of cables owned by Telekom Srbija a.d.**				**154,90**
	TOTAL (EUR):				**28.359,30**

BILL OF QUANTITIES

5 / 3.3.4 INFORMATION AND COMMUNICATION SYSTEMS - SREMSKI KARLOVCI STATION

Number	Description of works	Measurement unit	Quantity.	Unit price (EUR)	Price (EUR)
			A	B	AxB
NOTE					
2	**MAIN CABLE ROUTES**				
	Material				
05.03.03.04.02.01	PE pipe Ø 50	m	50	1,00	50,00
05.03.03.04.02.02	Fittings for forking, turning and diameter reduction for PEØ 50 pipes.	pcs	40	2,90	116,00
05.03.03.04.02.03	Perforated shielded sheet steel cable tray. Set with mounting accessories and elements for horizontal and vertical turns and mounting in a suspended ceiling / ceiling, cross section 200mm x 50mm.	m	170	5,15	875,50
05.03.03.04.02.04	Perforated sheet steel cable tray. Set with mounting accessories and elements for horizontal and vertical turns and mounting in a double floor, cross section 200mm x 50mm.	m	50	5,15	257,50
05.03.03.04.02.04	Self-adhesive plastic ducts without halogen elements dimensions:				
	- 16x16x1000mm	m	30	2,66	79,80
	- 16x40x1000mm	m	30	1,33	39,90
05.03.03.04.02.05	Halogen free installation corrugated hose with all fittings and clamps and clamps (3pcs / 1m), (installation in the building), (Dietzel Univolt FX) or equivalent. Outside diameter:				
	- Ø40	m	1700	0,50	850,00
	- Ø36	m	2500	0,33	825,00
	- Ø16	m	1700	0,15	255,00
05.03.03.04.02.06	Installation ribbed hose with all fittings and clamps and clamps (3pcs / 1m), (off-site installation), (Dietzel Univolt FX) or equivalent. Outside diameter:				
	- Ø40	m	100	0,50	50,00
	- Ø36	m	250	0,33	82,50
05.03.03.04.02.07	Fire-fighting mixture which, with a fire barrier, forms a compact whole from the aspect of the required fire resistance, with the appropriate certificate, in accordance with the valid legal regulations	m²	2	130,00	260,00
05.03.03.04.02.08	Small installation material (bag screws, arc clamps, dowels ...)	set	1	120,00	120,00

	Works				
05.03.03.04.02.09	Laying of PE pipes in the prepared routes with the installation of fittings	m	50	0,30	15,00
05.03.03.04.02.10	Installation of cable racks in the suspended ceiling / on the wall	m	170	0,65	110,50
05.03.03.04.02.11	Installation of cable racks in the double floor	m	50	0,65	32,50
05.03.03.04.02.12	Installation of self-adhesive plastic channels with all necessary works.	m	60	0,44	26,40
05.03.03.04.02.13	Installation of installation pipes in the wall / ceiling / suspended ceiling / double floor, with wall sealing, hole punching, installation of junction boxes.	m	5900	1,77	10.443,00
05.03.03.04.02.14	Installation of installation pipes in lighting poles and in the canopy	m	350	1,35	472,50
05.03.03.04.02.15	All works on closing the penetration of the installation with fire-fighting mixture (in accordance with the valid regulations) and coating of cables, pipes, ducts, etc. in the length of one meter on each side of the penetration.	m²	2	125,00	250,00
	TOTAL MAIN CABLE ROUTES:				**15.211,10**
3	**COMMON COMPUTER NETWORK**				
	Cables for common communication network (structured cabling, video surveillance system, clock system)				
05.03.03.04.03.28	PE pipe Ø 40mm for installation of optical cable	m	710	0,80	568,00
05.03.03.04.03.29	Coupling for plastic pipes PE Ø 40mm.	pcs	10	2,00	20,00
05.03.03.04.03.30	Pipe plug PE Ø 40mm	pcs	10	1,88	18,80
	TOTAL cables:				
	Works				
05.03.03.04.03.36	Assembly and installation of 19 "freestanding cabinet 42U with installation and connection of equipment	set	2	125,00	250,00
05.03.03.04.03.37	**Assembly and installation of RO-TK cabinets with installation and connection of equipment**	**set**	**2**	**0,00**	**0,00**
05.03.03.04.03.38	Material, production, laying of foundations, assembly and installation of external cabinet with installation and connection of equipment. With all the necessary material and work to bring it to full functionality and stability	set	4	305,00	1.220,00
05.03.03.04.03.39	**Installation and connection of active network equipment with all necessary equipment**	**set**	**1**	**0,00**	**0,00**
05.03.03.04.03.40	Installation of adapter 45x45mm for installation in the parapet and / or built-in and / or floor socket and / or set complete with mounting module holder	pcs	35	4,00	140,00
05.03.03.04.03.41	Mounting shielded micro socket cat.6a for mounting in a socket for a structured cabling system	pcs	70	1,05	73,50
05.03.03.04.03.42	Installation of a wall-mounted single socket for mounting in a suspended ceiling for IP equipment	pcs	15	1,05	15,75
05.03.03.04.03.43	Mounting a single socket for mounting in an IP equipment enclosure	pcs	66	1,05	69,30
05.03.03.04.03.44	Installation and connection of armored micro socket cat.6a	pcs	81	1,05	85,05
05.03.03.04.03.45	Laying copper cables in already prepared routes	m	7870	0,34	2.675,80

05.03.03.04.03.46	Laying optical cables in already prepared routes	m	710	0,73	518,30
05.03.03.04.03.47	Laying PE pipes in the prepared routes with the installation of couplings and all necessary works	m	710	0,30	213,00
05.03.03.04.03.48	Testing of copper lines of a common communication network with the development of measurement protocols	set	1	0,00	0,00
05.03.03.04.03.49	Measurements before laying on an optical cable with 8 o. v. (by cable length)	set	1	0,00	0,00
05.03.03.04.03.50	Measurements after laying on an optical cable with 8 o. v. (by cable length)	set	1	0,00	0,00
05.03.03.04.03.51	Final measurements on an optical cable with 8 o. v. with the development of the protocol of final measurements on the optical cable on the measuring section without extensions	set	1	0,00	0,00
05.03.03.04.03.52	Measurements before laying on an optical cable with 24 o. v. (by cable length)	set	1	0,00	0,00
05.03.03.04.03.53	Measurements after laying on an optical cable with 24 o. v. (by cable length)	set	1	0,00	0,00
05.03.03.04.03.54	Final measurements on a 24 o optical cable. v. with the development of the protocol of final measurements on the optical cable on the measuring section without extensions	set	1	0,00	0,00
	TOTAL works:				
	TOTAL COMMON COMPUTER NETWORK:				**5.867,50**
4	**VoIP COMMUNICATION SYSTEM**				
05.03.03.04.04.05	Installation of equipment with connection to the performed installation with all necessary equipment	set	1	0,00	0,00
	TOTAL VoIP COMMUNICATION SYSTEM:				**0,00**
5	**VIDEO SECURITY SYSTEM**				
	Works				
05.03.03.04.05.10	**Mounting and connecting to the installed box camera installation**	**pcs**	**18**	**0,00**	**0,00**
05.03.03.04.05.11	**Mounting and connecting to the installed box camera adapter installation**	**pcs**	**12**	**0,00**	**0,00**
05.03.03.04.05.12	**Installation and connection to the installed installation of the dome camera**	**pcs**	**38**	**0,00**	**0,00**
05.03.03.04.05.13	**Mounting and connection to the installed installation of the dome camera adapter**	**pcs**	**15**	**0,00**	**0,00**
05.03.03.04.05.14	**Installation and connection to the installed workstation installation**	**pcs**	**1**	**0,00**	**0,00**
05.03.03.04.05.15	**Mounting and connecting to the installed monitor installation**	**pcs**	**2**	**0,00**	**0,00**
	TOTAL VIDEO SECURITY SYSTEM:				**0,00**

6	**PUBLIC ADDRESS SYSTEM**				
	Works				
05.03.03.04.06.21	Laying cables in already prepared routes.	m	2100	0,51	1.071,00
05.03.03.04.06.22	Installation and connection to the installed installation of the call station and keypad	pcs	1	0,00	0,00
05.03.03.04.06.23	Installation and connection to the installed installation of the ceiling speaker	pcs	14	0,00	0,00
05.03.03.04.06.24	Mounting and connecting to the installed line speaker installation	pcs	8	0,00	0,00
05.03.03.04.06.25	Installation and connection to the installed horn installation	pcs	6	0,00	0,00
05.03.03.04.06.26	Installation and connection to the installed junction box installation	pcs	44	0,00	0,00
05.03.03.04.06.27	Mounting and connection to the installed attenuator installation	pcs	2	0,00	0,00
05.03.03.04.06.28	Installation and connection to the installed network controller installation	pcs	1	0,00	0,00
05.03.03.04.06.29	Mounting and connection to the installed amplifier installation	pcs	5	0,00	0,00
05.03.03.04.06.30	Installation and connection to the installed installation of the Audio / Ethernet network audio module	pcs	1	0,00	0,00
05.03.03.04.06.31	Mounting and connection to the installed installation of the ambient microphone with the bracket	pcs	2	0,00	0,00
05.03.03.04.06.32	Measurement and testing of the performed installation	set	1	0,00	0,00
	TOTAL PUBLIC ADDRESS SYSTEM:				**1.071,00**
7	**CLOCK SYSTEM**				
	Works				
05.03.03.04.07.07	Installation and connection to the performed installation of a one-sided analog secondary clock for indoor installation	pcs	8	0,00	0,00
05.03.03.04.07.08	Installation and connection to the performed installation of a one-sided analog secondary clock for outdoor installation	pcs	1	0,00	0,00
05.03.03.04.07.09	Mounting and connection to the performed installation of a two-way analog secondary clock for outdoor mounting	pcs	2	0,00	0,00
05.03.03.04.07.10	Mounting bracket for one-sided and two-sided clock with a diameter of 30 cm for indoor mounting	pcs	8	0,00	0,00
05.03.03.04.07.11	Mounting brackets for single-sided and double-sided clocks with a diameter of 60 cm for outdoor mounting	pcs	3	0,00	0,00
	TOTAL CLOCK SYSTEM:				**0,00**

8	**INFO BOARD SYSTEM**				
	Works				
05.03.03.04.08.07	Installation and connection to the performed installation of a single-sided panel for indoor installation	pcs	1	0,00	0,00
05.03.03.04.08.08	Installation and connection to the performed installation of a single-sided panel for outdoor installation	pcs	1	0,00	0,00
05.03.03.04.08.09	Installation and connection to the performed installation of a double-sided panel for outdoor installation	pcs	2	0,00	0,00
05.03.03.04.08.10	Mounting brackets for one-sided board	pcs	2	0,00	0,00
05.03.03.04.08.11	Mounting brackets for double-sided board	pcs	2	0,00	0,00
	TOTAL INFO BOARD SYSTEM:				**0,00**
9	**ACCESS CONTROL SYSTEM**				
	Works				
05.03.03.04.09.11	Laying cables in already prepared routes.	m	500	0,34	170,00
05.03.03.04.09.12	**Assembly, installation and connection to the performed installation of the housing for storing the equipment of the system with the installation and connection of the equipment**	**pcs**	**4**	**0,00**	**0,00**
05.03.03.04.09.13	Installation and connection to the performed installation of the reader	pcs	5	0,00	0,00
05.03.03.04.09.14	Installation and connection to the performed installation of buttons for permanent / temporary unlocking of electromagnetic holders	pcs	10	0,00	0,00
05.03.03.04.09.15	Mounting and connection to the performed installation of the electromagnetic holder	pcs	5	0,00	0,00
05.03.03.04.09.16	Measurement and testing of the performed installation	set	1	0,00	0,00
	TOTAL ACCESS CONTROL SYSTEM:				**170,00**
10	**BURGLAR SIGNALING SYSTEM**				
	Works				
05.03.03.04.10.15	Laying cables in already prepared routes.	m	800	0,34	272,00
05.03.03.04.10.16	**Assembly, installation and connection to the performed installation of the housing for storing the equipment of the system with the installation and connection of the equipment**	**pcs**	**1**	**0,00**	**0,00**
05.03.03.04.10.17	Mounting and connection to the performed installation of the motion sensor	pcs	8	0,00	0,00
05.03.03.04.10.18	Installation and connection to the performed installation of glass breakage detectors	pcs	9	0,00	0,00
05.03.03.04.10.19	Installation and connection to the performed installation of alarm sirens	pcs	7	0,00	0,00
05.03.03.04.10.20	Mounting and connecting to the performed keyboard installation	pcs	5	0,00	0,00
05.03.03.04.10.21	Measurement and testing of the performed installation	set	1	0,00	0,00
	TOTAL BURGLAR SIGNALING SYSTEM:				**272,00**

11	**AUTOMATIC FIRE ALARM SYSTEM**				
	Material				
05.03.03.04.11.16	Halogen free installation corrugated hose with all fittings and clamps and clamps (3pcs / 1m), (installation in the building), (Dietzel Univolt FX) or equivalent. Outside diameter:				
	- Ø40	m	20	0,50	10,00
	- Ø36	m	1100	0,33	363,00
	- Ø16	m	600	0,15	90,00
05.03.03.04.11.17	Self-adhesive plastic ducts without halogen elements dimensions:				
	- 16x16x1000mm	m	20	2,66	53,20
	- 16x40x1000mm	m	30	4,33	129,90
	Works				
05.03.03.04.11.21	**Assembly and installation of cabinets and installation of equipment in the cabinet**	**pcs**	**3**	**0,00**	**0,00**
05.03.03.04.11.22	Installation of installation pipes in the wall / ceiling / suspended ceiling / double floor, with wall sealing, hole punching, installation of junction boxes.	m	1720	1,77	3.044,40
05.03.03.04.11.23	Installation of self-adhesive plastic pipes	m	50	0,44	22,00
05.03.03.04.11.24	Laying cables in already prepared routes.	m	3250	0,34	1.105,00
05.03.03.04.11.25	All works on closing the penetration of the installation with fire-fighting mixture (in accordance with the valid regulations) and coating of cables, pipes, ducts, etc. in the length of one meter on each side of the penetration.	m^2	1	125,00	125,00
05.03.03.04.11.26	**Installation and connection to the installed installation of an addressable fire control panel**	**pcs**	**1**	**0,00**	**0,00**
05.03.03.04.11.27	**Mounting and connection to the installed relay module installation**	**pcs**	**2**	**0,00**	**0,00**
05.03.03.04.11.28	**Installation and connection to the installed battery installation**	**pcs**	**4**	**0,00**	**0,00**
05.03.03.04.11.29	**Installation and connection to the installed installation of the alarm machine**	**pcs**	**1**	**0,00**	**0,00**
05.03.03.04.11.30	**Mounting on the base and connecting to the installed installation of an addressable automatic detector**	**pcs**	**54**	**0,00**	**0,00**
05.03.03.04.11.31	**Installation and connection to the installed installation of a manual addressable detector**	**pcs**	**17**	**0,00**	**0,00**
05.03.03.04.11.32	**Installation and connection to the installed alarm siren installation**	**pcs**	**10**	**0,00**	**0,00**
05.03.03.04.11.33	**Installation and connection to the installed installation of the parallel indicator light**	**pcs**	**28**	**0,00**	**0,00**
05.03.03.04.11.34	**Installation and connection to the installed installation of an additional base for hanging fire detectors on non-standard surfaces (concrete beams, roof structure, uneven walls, ...), with all the necessary material**	**pcs**	**33**	**0,00**	**0,00**
05.03.03.04.11.35	**Measurement and testing of the performed installation**	**set**	**1**	**0,00**	**0,00**
	TOTAL AUTOMATIC FIRE ALARM SYSTEM:				**4.942,50**

12	**SOS SYSTEM**				
	Works				
05.03.03.04.12.08	Laying cables in already prepared routes.	m	90	0,34	30,60
05.03.03.04.12.09	**Assembly, installation and connection to the performed installation of the central panel**	**pcs**	**1**	**0,00**	**0,00**
05.03.03.04.12.10	Installation and connection to the performed installation of the call-resolution combination	pcs	1	0,00	0,00
05.03.03.04.12.11	Installation and connection to the performed installation of a room signal lamp	pcs	2	0,00	0,00
05.03.03.04.12.12	Installation and connection to the performed installation of the SOS pushbutton complete with mounting equipment	pcs	1	0,00	0,00
05.03.03.04.12.13	Assembly and connection to the performed installation of the junction box	pcs	2	0,00	0,00
05.03.03.04.12.14	Measurement and testing of the performed installation	set	1	0,00	0,00
	TOTAL SOS SYSTEM:				**30,60**
13	**ENVIRONMENTAL MONITORING SYSTEM**				
	Technical room in the station building				
	Works				
05.03.03.04.13.08	Installation and connection of equipment to the performed installation	set	1	0,00	0,00
Building for SS and TT					
	Works				
05.03.03.04.13.17	Installation and connection of equipment to the performed installation	set	1	0,00	0,00
	TOTAL ENVIRONMENTAL MONITORING SYSTEM:				**0,00**
14	**DUAL COMMUNICATION MICROPHONE SYSTEM**				
	Works				
05.03.03.04.14.02	Installation and connection of equipment to the performed installation	set	2	0,00	0,00
	TOTAL MICROPHONE SYSTEM FOR DOUBLE COMMUNICATION:				**0,00**
16	**Introduction of cables owned by Telekom Srbija a.d.**				
	Material				
05.03.03.04.16.02	Halogen free installation corrugated hose with all fittings and clamps and clamps (3pcs / 1m), (installation in the building), (Dietzel Univolt FX) or equivalent. Outside diameter:				
	- Ø40	m	10	0,50	5,00
	- Ø36	m	50	0,33	16,50
	Works				

05.03.03.04.15.05	**Assembly and installation of a built-in cabinet and installation of equipment in the cabinet**	**pcs**	**1**	**0,00**	**0,00**
05.03.03.04.15.06	Installation of installation pipes in the wall / ceiling / suspended ceiling / double floor, with wall sealing, hole punching, installation of junction boxes.	m	60	1,77	106,20
05.03.03.04.15.07	Laying cables in already prepared routes.	m	80	0,34	27,20
05.03.03.04.15.08	**Design and preparation of documentation**	**set**	**1**	**0,00**	**0,00**
	TOTAL INTRODUCTION OF CABLES:				**154,90**
2	**MAIN CABLE ROUTES**				**15.211,10**
3	**COMMON COMPUTER NETWORK**				**5.867,50**
4	**VoIP COMMUNICATION SYSTEM**				**0,00**
5	**VIDEO SECURITY SYSTEM**				**0,00**
6	**PUBLIC ADDRESS SYSTEM**				**1.071,00**
7	**CLOCK SYSTEM**				**0,00**
8	**INFO BOARD SYSTEM**				**0,00**
9	**ACCESS CONTROL SYSTEM**				**170,00**
10	**BURGLAR SIGNALING SYSTEM**				**272,00**
11	**AUTOMATIC FIRE ALARM SYSTEM**				**4.942,50**
12	**SOS SYSTEM**				**30,60**
13	**ENVIRONMENTAL MONITORING SYSTEM**				**0,00**
14	**DUAL COMMUNICATION MICROPHONE SYSTEM**				**0,00**
16	**Introduction of cables owned by Telekom Srbija a.d.**				**154,90**
	TOTAL (EUR):				**27.719,60**

BILL OF QUANTITIES

5 / 3.3.5 INFORMATION AND COMMUNICATION SYSTEMS - PETROVARADIN STATION

Number	Description of works	Measurement unit	Quantity.	Unit price (EUR)	Price (EUR)
			A	B	AxB
NOTE					
2	**MAIN CABLE ROUTES**				
	Material				
05.03.03.05.02.01	PE pipe Ø 50	m	50	1,00	50,00
05.03.03.05.02.02	Fittings for forking, turning and diameter reduction for PEØ 50 pipes.	pcs	30	2,90	87,00
05.03.03.05.02.03	Perforated shielded sheet steel cable tray. Set with mounting accessories and elements for horizontal and vertical turns and mounting in a suspended ceiling / ceiling, cross section 200mm x 50mm.	m	130	5,15	669,50
05.03.03.05.02.05	Self-adhesive plastic ducts without halogen elements dimensions:				
	- 16x16x1000mm	m	30	2,66	79,80
	- 16x40x1000mm	m	30	4,33	129,90
05.03.03.05.02.06	Halogen free installation corrugated hose with all fittings and clamps and clamps (3pcs / 1m), (installation in the building), (Dietzel Univolt FX) or equivalent. Outside diameter:				
	- Ø40	m	1700	0,50	850,00
	- Ø36	m	2500	0,33	825,00
	- Ø16	m	1700	0,13	221,00
05.03.03.05.02.07	Installation ribbed hose with all fittings and clamps and clamps (3pcs / 1m), (off-site installation), (Dietzel Univolt FX) or equivalent. Outside diameter:				
	- Ø40	m	80	0,50	40,00
	- Ø36	m	150	0,33	49,50
05.03.03.05.02.08	Procurement and delivery of fire-fighting mixture. Calculated with an average penetration size of 0.3x0.3 m	m^2	2	130,00	260,00
05.03.03.05.02.09	Small installation material (bag screws, arc clamps, dowels ...)	set	1	120,00	120,00

	Works				
05.03.03.05.02.10	Laying of PE pipes in the prepared routes with the installation of fittings	m	50	0,30	15,00
05.03.03.05.02.11	Installation of cable racks in the suspended ceiling / on the wall	m	130	0,65	84,50
05.03.03.05.02.13	Installation of self-adhesive plastic channels with all necessary works.	m	60	0,44	26,40
05.03.03.05.02.14	Installation of installation pipes in the wall / ceiling / suspended ceiling / double floor, with wall sealing, hole punching, installation of junction boxes.	m	5900	1,77	10.443,00
05.03.03.05.02.15	Installation of installation pipes in lighting poles and in the canopy	m	230	1,35	310,50
05.03.03.05.02.16	All works on closing the penetration of the installation with fire-fighting mixture (in accordance with the valid regulations) and coating of cables, pipes, ducts, etc. in the length of one meter on each side of the penetration.	m²	2	125,00	250,00
	TOTAL MAIN CABLE ROUTES:				**14.511,10**
3	**COMMON COMPUTER NETWORK**				
	Cables for common communication network (structured cabling, video surveillance system, clock system)				
05.03.03.05.03.31	PE pipe Ø 40mm for installation of optical cable	m	900	0,80	720,00
05.03.03.05.03.32	Coupling for plastic pipes PE Ø 40mm.	pcs	10	2,00	20,00
05.03.03.05.03.33	Pipe plug PE Ø 40mm	pcs	10	1,88	18,80
	TOTAL cables:				
	Works				
05.03.03.05.03.39	Assembly and installation of 19 "freestanding cabinet 42U with installation and connection of equipment	set	2	125,00	250,00
05.03.03.05.03.40	**Assembly and installation of RO-TK cabinets with installation and connection of equipment**	**set**	**2**	**0,00**	**0,00**
05.03.03.05.03.41	Material, production, laying of foundations, assembly and installation of external cabinet with installation and connection of equipment. With all the necessary material and work to bring it to full functionality and stability	set	4	305,00	1.220,00
05.03.03.05.03.42	**Installation and connection of active network equipment with all necessary equipment**	**set**	**1**	**0,00**	**0,00**
05.03.03.05.03.43	Installation of adapter 45h45mm for installation in the parapet and / or built-in and / or floor socket and / or set complete with mounting module holder	pcs	38	4,00	152,00
05.03.03.05.03.44	Mounting shielded micro socket cat.6a for mounting in a socket for a structured cabling system	pcs	76	1,05	79,80
05.03.03.05.03.45	Mounting a single socket for mounting in an IP equipment enclosure	pcs	93	1,05	97,65

05.03.03.05.03.46	Installation and connection of armored micro socket cat.6a	pcs	93	1,05	97,65
05.03.03.05.03.47	Laying copper cables in already prepared routes	m	9070	0,34	3.083,80
05.03.03.05.03.48	Laying optical cables in already prepared routes	m	900	0,73	657,00
05.03.03.05.03.49	Laying PE pipes in the prepared routes with the installation of couplings and all necessary works	m	900	0,30	270,00
05.03.03.05.03.50	Testing of copper lines of a common communication network with the development of measurement protocols	set	1	0,00	0,00
05.03.03.05.03.51	Measurements before laying on an optical cable with 8 o. v. (by cable length)	set	1	0,00	0,00
05.03.03.05.03.52	Measurements after laying on an optical cable with 8 o. v. (by cable length)	set	1	0,00	0,00
05.03.03.05.03.53	Final measurements on an optical cable with 8 o. v. with the development of the protocol of final measurements on the optical cable on the measuring section without extensions	set	1	0,00	0,00
05.03.03.05.03.54	Measurements before laying on an optical cable with 24 o. v. (by cable length)	set	1	0,00	0,00
05.03.03.05.03.55	Measurements after laying on an optical cable with 24 o. v. (by cable length)	set	1	0,00	0,00
05.03.03.05.03.56	Final measurements on a 24 o optical cable. v. with the development of the protocol of final measurements on the optical cable on the measuring section without extensions	set	1	0,00	0,00
	TOTAL works:				
	TOTAL COMMON COMPUTER NETWORK:				**6.666,70**
4	**VoIP COMMUNICATION SYSTEM**				
05.03.03.05.04.05	Installation of equipment with connection to the performed installation with all necessary equipment	set	1	0,00	0,00
	TOTAL VoIP COMMUNICATION SYSTEM:				**0,00**
5	**VIDEO SECURITY SYSTEM**				
	Works				
05.03.03.05.05.10	**Mounting and connecting to the installed box camera installation**	**pcs**	**22**	**0,00**	**0,00**
05.03.03.05.05.11	**Mounting and connecting to the installed box camera adapter installation**	**pcs**	**10**	**0,00**	**0,00**
05.03.03.05.05.12	**Installation and connection to the installed installation of the dome camera**	**pcs**	**38**	**0,00**	**0,00**
05.03.03.05.05.13	**Mounting and connection to the installed installation of the dome camera adapter**	**pcs**	**14**	**0,00**	**0,00**
05.03.03.05.05.14	**Installation and connection to the installed workstation installation**	**pcs**	**1**	**0,00**	**0,00**
05.03.03.05.05.15	**Mounting and connecting to the installed monitor installation**	**pcs**	**2**	**0,00**	**0,00**
	TOTAL VIDEO SECURITY SYSTEM:				**0,00**

6	**PUBLIC ADDRESS SYSTEM**				
	Works				
05.03.03.05.06.21	Laying cables in already prepared routes.	m	2770	0,51	1.412,70
05.03.03.05.06.22	**Installation and connection to the installed installation of the call station and keypad**	**pcs**	**1**	**0,00**	**0,00**
05.03.03.05.06.23	**Installation and connection to the installed installation of the ceiling speaker**	**pcs**	**11**	**0,00**	**0,00**
05.03.03.05.06.24	**Mounting and connecting to the installed line speaker installation**	**pcs**	**8**	**0,00**	**0,00**
05.03.03.05.06.25	**Installation and connection to the installed horn installation**	**pcs**	**7**	**0,00**	**0,00**
05.03.03.05.06.26	**Installation and connection to the installed junction box installation**	**pcs**	**50**	**0,00**	**0,00**
05.03.03.05.06.27	**Mounting and connection to the installed attenuator installation**	**pcs**	**2**	**0,00**	**0,00**
05.03.03.05.06.28	**Installation and connection to the installed network controller installation**	**pcs**	**1**	**0,00**	**0,00**
05.03.03.05.06.29	**Mounting and connection to the installed amplifier installation**	**pcs**	**3**	**0,00**	**0,00**
05.03.03.05.06.30	**Installation and connection to the installed installation of the Audio / Ethernet network audio module**	**pcs**	**1**	**0,00**	**0,00**
05.03.03.05.06.31	**Mounting and connection to the installed installation of the ambient microphone with the bracket**	**pcs**	**2**	**0,00**	**0,00**
05.03.03.05.06.32	**Measurement and testing of the performed installation**	**set**	**1**	**0,00**	**0,00**
	TOTAL PUBLIC ADDRESS SYSTEM:				**1.412,70**
7	**CLOCK SYSTEM**				
	Works				
05.03.03.05.07.07	Installation and connection to the performed installation of a one-sided analog secondary clock for indoor installation	pcs	9	0,00	0,00
05.03.03.05.07.08	Installation and connection to the performed installation of a one-sided analog secondary clock for outdoor installation	pcs	1	0,00	0,00
05.03.03.05.07.09	Mounting and connection to the performed installation of a two-way analog secondary clock for outdoor mounting	pcs	4	0,00	0,00
05.03.03.05.07.10	Mounting bracket for one-sided and two-sided clock with a diameter of 30 cm for indoor mounting	pcs	9	0,00	0,00
05.03.03.05.07.11	Mounting brackets for single-sided and double-sided clocks with a diameter of 60 cm for outdoor mounting	pcs	5	0,00	0,00
	TOTAL CLOCK SYSTEM:				**0,00**

8	**INFO BOARD SYSTEM**				
	Works				
05.03.03.05.08.07	Installation and connection to the performed installation of a single-sided panel for indoor installation	pcs	1	0,00	0,00
05.03.03.05.08.08	Installation and connection to the performed installation of a single-sided panel for outdoor installation	pcs	1	0,00	0,00
05.03.03.05.08.09	Installation and connection to the performed installation of a double-sided panel for outdoor installation	pcs	4	0,00	0,00
05.03.03.05.08.10	Mounting brackets for one-sided board	pcs	2	0,00	0,00
05.03.03.05.08.11	Mounting brackets for double-sided board	pcs	4	0,00	0,00
	TOTAL INFO BOARD SYSTEM:				**0,00**
9	**ACCESS CONTROL SYSTEM**				
	Works				
05.03.03.05.09.11	Laying cables in already prepared routes.	m	500	0,34	170,00
05.03.03.05.09.12	**Assembly, installation and connection to the performed installation of the housing for storing the equipment of the system with the installation and connection of the equipment**	**pcs**	**4**	**0,00**	**0,00**
05.03.03.05.09.13	Installation and connection to the performed installation of the reader	pcs	5	0,00	0,00
05.03.03.05.09.14	Installation and connection to the performed installation of buttons for permanent / temporary unlocking of electromagnetic holders	pcs	10	0,00	0,00
05.03.03.05.09.15	Mounting and connection to the performed installation of the electromagnetic holder	pcs	5	0,00	0,00
05.03.03.05.09.16	Measurement and testing of the performed installation	set	1	0,00	0,00
	TOTAL ACCESS CONTROL SYSTEM:				**170,00**
10	**BURGLAR SIGNALING SYSTEM**				
	Works				
05.03.03.05.10.15	Laying cables in already prepared routes.	m	650	0,34	221,00
05.03.03.05.10.16	**Assembly, installation and connection to the performed installation of the housing for storing the equipment of the system with the installation and connection of the equipment**	**pcs**	**1**	**0,00**	**0,00**
05.03.03.05.10.17	Mounting and connection to the performed installation of the motion sensor	pcs	8	0,00	0,00
05.03.03.05.10.18	Installation and connection to the performed installation of glass breakage detectors	pcs	11	0,00	0,00
05.03.03.05.10.19	Installation and connection to the performed installation of alarm sirens	pcs	4	0,00	0,00
05.03.03.05.10.20	Mounting and connecting to the performed keyboard installation	pcs	5	0,00	0,00
05.03.03.05.10.21	Measurement and testing of the performed installation	set	1	0,00	0,00
	TOTAL BURGLAR SIGNALING SYSTEM:				**221,00**

11	**AUTOMATIC FIRE ALARM SYSTEM**				
	Material				
05.03.03.05.11.16	Halogen free installation corrugated hose with all fittings and clamps and clamps (3pcs / 1m), (installation in the building), (Dietzel Univolt FX) or equivalent. Outside diameter:				
	- Ø40	m	20	0,50	10,00
	- Ø36	m	1200	0,33	396,00
	- Ø16	m	500	0,15	75,00
05.03.03.05.11.17	Self-adhesive plastic ducts without halogen elements dimensions:				
	- 16x16x1000mm	m	20	2,66	53,20
	- 16x40x1000mm	m	30	4,33	129,90
	Works				
05.03.03.05.11.21	**Assembly and installation of cabinets and installation of equipment in the cabinet**	pcs	2	0,00	0,00
05.03.03.05.11.22	Installation of installation pipes in the wall / ceiling / suspended ceiling / double floor, with wall sealing, hole punching, installation of junction boxes.	m	1720	1,77	3.044,40
05.03.03.05.11.23	Installation of self-adhesive plastic pipes	m	50	0,44	22,00
05.03.03.05.11.24	Laying cables in already prepared routes.	m	3850	0,34	1.309,00
05.03.03.05.11.25	All works on closing the penetration of the installation with fire-fighting mixture (in accordance with the valid regulations) and coating of cables, pipes, ducts, etc. in the length of one meter on each side of the penetration.	m^2	1	125,00	125,00
05.03.03.05.11.26	**Installation and connection to the installed installation of an addressable fire control panel**	pcs	1	0,00	0,00
05.03.03.05.11.27	**Mounting and connection to the installed relay module installation**	pcs	2	0,00	0,00
05.03.03.05.11.28	**Installation and connection to the installed battery installation**	pcs	4	0,00	0,00
05.03.03.05.11.29	**Installation and connection to the installed installation of the alarm machine**	pcs	1	0,00	0,00
05.03.03.05.11.30	**Mounting on the base and connecting to the installed installation of an addressable automatic detector**	pcs	37	0,00	0,00
05.03.03.05.11.31	**Installation and connection to the installed installation of a manual addressable detector**	pcs	16	0,00	0,00
05.03.03.05.11.32	**Installation and connection to the installed alarm siren installation**	pcs	9	0,00	0,00
05.03.03.05.11.33	**Installation and connection to the installed installation of the parallel indicator light**	pcs	12	0,00	0,00
05.03.03.05.11.34	**Installation and connection to the installed installation of an additional base for hanging fire detectors on non-standard surfaces (concrete beams, roof structure, uneven walls, ...), with all the necessary material**	pcs	29	0,00	0,00
05.03.03.05.11.35	**Measurement and testing of the performed installation**	set	1	0,00	0,00
	TOTAL AUTOMATIC FIRE ALARM SYSTEM:				**5.164,50**

12	**SOS SYSTEM**				
	Works				
05.03.03.05.12.08	Laying cables in already prepared routes.	m	90	0,34	30,60
05.03.03.05.12.09	**Assembly, installation and connection to the performed installation of the central panel**	**pcs**	**1**	**0,00**	**0,00**
05.03.03.05.12.10	Installation and connection to the performed installation of the call-resolution combination	pcs	1	0,00	0,00
05.03.03.05.12.11	Installation and connection to the performed installation of a room signal lamp	pcs	2	0,00	0,00
05.03.03.05.12.12	Installation and connection to the performed installation of the SOS pushbutton complete with mounting equipment	pcs	1	0,00	0,00
05.03.03.05.12.13	Assembly and connection to the performed installation of the junction box	pcs	2	0,00	0,00
05.03.03.05.12.14	Measurement and testing of the performed installation	set	1	0,00	0,00
	TOTAL SOS SYSTEM:				**30,60**
13	**ENVIRONMENTAL MONITORING SYSTEM**				
Building for SS and TT					
	Works				
05.03.03.05.13.09	Installation and connection of equipment to the performed installation	set	1	0,00	0,00
	TOTAL ENVIRONMENTAL MONITORING SYSTEM:				**0,00**
14	**DUAL COMMUNICATION MICROPHONE SYSTEM**				
	Works				
05.03.03.05.14.02	Installation and connection of equipment to the performed installation	set	1	0,00	0,00
	TOTAL MICROPHONE SYSTEM FOR DOUBLE COMMUNICATION:				**0,00**
16	**Introduction of cables owned by Telekom Srbija a.d.**				
	Material				
05.03.03.05.16.02	Halogen free installation corrugated hose with all fittings and clamps and clamps (3pcs / 1m), (installation in the building), (Dietzel Univolt FX) or equivalent. Outside diameter:				
	- Ø40	m	10	0,50	5,00
	- Ø36	m	50	0,33	16,50
	Works				

05.03.03.05.16.05	**Assembly and installation of a built-in cabinet and installation of equipment in the cabinet**	**pcs**	**1**	**0,00**	**0,00**
05.03.03.05.16.06	Installation of installation pipes in the wall / ceiling / suspended ceiling / double floor, with wall sealing, hole punching, installation of junction boxes.	m	60	1,77	106,20
05.03.03.05.16.07	Laying cables in already prepared routes.	m	80	0,34	27,20
05.03.03.05.16.08	**Design and preparation of documentation**	**set**	**1**	**0,00**	**0,00**
	TOTAL INTRODUCTION OF CABLES:				**154,90**
2	**MAIN CABLE ROUTES**				**14.511,10**
3	**COMMON COMPUTER NETWORK**				**6.666,70**
4	**VoIP COMMUNICATION SYSTEM**				**0,00**
5	**VIDEO SECURITY SYSTEM**				**0,00**
6	**PUBLIC ADDRESS SYSTEM**				**1.412,70**
7	**CLOCK SYSTEM**				**0,00**
8	**INFO BOARD SYSTEM**				**0,00**
9	**ACCESS CONTROL SYSTEM**				**170,00**
10	**BURGLAR SIGNALING SYSTEM**				**221,00**
11	**AUTOMATIC FIRE ALARM SYSTEM**				**5.164,50**
12	**SOS SYSTEM**				**30,60**
13	**ENVIRONMENTAL MONITORING SYSTEM**				**0,00**
14	**DUAL COMMUNICATION MICROPHONE SYSTEM**				**0,00**
16	**Introduction of cables owned by Telekom Srbija a.d.**				**154,90**
	TOTAL (EUR):				**28.331,50**

BILL OF QUANTITIES

5 / 3.3.6 INFORMATION AND COMMUNICATION SYSTEMS - KARLOVACKI VINOGRADI STATION

Number	Description of works	Measurement unit	Quantity.	Unit price (EUR)	Price (EUR)
			A	B	AxB
NOTE					
2	**MAIN CABLE ROUTES**				
	Material				
05.03.03.06.02.01	PE pipe Ø 50	m	10	1,00	10,00
05.03.03.06.02.02	Fittings for forking, turning and diameter reduction for PEØ 50 pipes.	pcs	10	2,90	29,00
05.03.03.06.02.03	Perforated shielded sheet steel cable tray. Set with mounting accessories and elements for horizontal and vertical turns and mounting in a suspended ceiling / ceiling, cross section 200mm x 50mm.	m	50	5,15	257,50
05.03.03.06.02.05	Self-adhesive plastic ducts without halogen elements dimensions:				
	- 16x16x1000mm	m	30	2,66	79,80
	- 16x40x1000mm	m	30	4,33	129,90
05.03.03.06.02.06	Halogen free installation corrugated hose with all fittings and clamps and clamps (3pcs / 1m), (installation in the building), (Dietzel Univolt FX) or equivalent. Outside diameter:				
	- Ø40	m	800	0,50	400,00
	- Ø36	m	1500	0,33	495,00
	- Ø16	m	800	0,15	120,00
05.03.03.06.02.07	Installation ribbed hose with all fittings and clamps and clamps (3pcs / 1m), (off-site installation), (Dietzel Univolt FX) or equivalent. Outside diameter:				
	- Ø40	m	10	0,50	5,00
	- Ø36	m	20	0,33	6,60
05.03.03.06.02.08	Fire-fighting mixture which, with a fire barrier, forms a compact whole from the aspect of the required fire resistance, with the appropriate certificate, in accordance with the valid legal regulations	m²	2	130,00	260,00
05.03.03.06.02.09	Small installation material (bag screws, arc clamps, dowels ...)	set	1	120,00	120,00

	Works				
05.03.03.06.02.10	Laying of PE pipes in the prepared routes with the installation of fittings	m	10	0,30	3,00
05.03.03.06.02.11	Installation of cable racks in the suspended ceiling / on the wall	m	50	0,65	32,50
05.03.03.06.02.12	Installation of self-adhesive plastic channels with all necessary works.	m	60	0,44	26,40
05.03.03.06.02.13	Installation of installation pipes in the wall / ceiling / suspended ceiling / double floor, with wall tuning, perforation of openings, installation of junction boxes.	m	3100	1,77	5.487,00
05.03.03.06.02.14	Installation of installation pipes in lighting poles and in the canopy	m	30	1,35	40,50
05.03.03.06.02.15	All works on closing the penetration of the installation with fire-fighting mixture (in accordance with the valid regulations) and coating of cables, pipes, ducts, etc. in the length of one meter on each side of the penetration.	m^2	2	125,00	250,00
	TOTAL MAIN CABLE ROUTES:				**7.752,20**
3	**COMMON COMPUTER NETWORK**				
	Works				
05.03.03.06.03.16	Assembly and installation of 19 "freestanding cabinet 42U with installation and connection of equipment	set	1	125,00	125,00
05.03.03.06.03.17	**Assembly and installation of RO-TK cabinets with installation and connection of equipment**	**set**	**1**	**0,00**	**0,00**
05.03.03.06.03.18	**Installation and connection of active network equipment with all necessary equipment**	**set**	**1**	**0,00**	**0,00**
05.03.03.06.03.19	Installation of adapter 45x45mm for installation in the parapet and / or built-in and / or floor socket and / or set complete with mounting module for installation	pcs	24	4,00	96,00
05.03.03.06.03.20	Mounting shielded micro socket cat.6a for mounting in a socket for a structured cabling system	pcs	48	1,05	50,40
05.03.03.06.03.21	Mounting a single socket for mounting in an IP equipment enclosure	pcs	15	1,05	15,75
05.03.03.06.03.22	Installation and connection of armored micro socket cat.6a	pcs	15	1,05	15,75
05.03.03.06.03.23	Laying copper cables in already prepared routes	m	3270	0,34	1.111,80
05.03.03.06.03.24	Testing of copper lines of a common communication network with the development of measurement protocols	set	1	0,00	0,00
05.03.03.06.03.25	Measurements before laying on an optical cable with 8 o. v. (by cable length)	set	1	0,00	0,00
05.03.03.06.03.26	Measurements after laying on an optical cable with 8 o. v. (by cable length)	set	1	0,00	0,00
05.03.03.06.03.27	Final measurements on an optical cable with 8 o. v. with the development of the protocol of final measurements on the optical cable on the measuring section without extensions	set	1	0,00	0,00
	TOTAL works:	set	1	71,00	71,00
	TOTAL COMMON COMPUTER NETWORK:				**1.485,70**

4	**VoIP COMMUNICATION SYSTEM**				
05.03.03.06.04.04	Installation of equipment with connection to the performed installation with all necessary equipment	set	1	0,00	0,00
	TOTAL VoIP COMMUNICATION SYSTEM:				**0,00**
5	**VIDEO SECURITY SYSTEM**				
	Works				
05.03.03.06.05.08	**Installation and connection to the installed installation of the dome camera**	**pcs**	**10**	**0,00**	**0,00**
05.03.03.06.05.09	**Mounting and connection to the installed installation of the dome camera adapter**	**pcs**	**7**	**0,00**	**0,00**
05.03.03.06.05.10	**Installation and connection to the installed workstation installation**	**pcs**	**1**	**0,00**	**0,00**
05.03.03.06.05.11	**Mounting and connecting to the installed monitor installation**	**pcs**	**2**	**0,00**	**0,00**
	TOTAL VIDEO SECURITY SYSTEM:				**0,00**
6	**CLOCK SYSTEM**				
	Works				
05.03.03.06.06.07	Installation and connection to the performed installation of a one-sided analog secondary clock for indoor installation	pcs	4	0,00	0,00
05.03.03.06.06.08	Installation and connection to the performed installation of a one-sided analog secondary clock for outdoor installation	pcs	1	0,00	0,00
05.03.03.06.06.09	Mounting bracket for one-sided and two-sided clock with a diameter of 30 cm for indoor mounting	pcs	4	0,00	0,00
05.03.03.06.06.10	Mounting bracket for single-sided and double-sided clock diameter 60cm for outdoor mounting	pcs	1	0,00	0,00
	TOTAL CLOCK SYSTEM:				**0,00**
7	**ACCESS CONTROL SYSTEM**				
	Works				
05.03.03.06.07.11	Laying cables in already prepared routes.	m	400	0,34	136,00
05.03.03.06.07.12	**Assembly, installation and connection to the performed installation of the housing for storing the equipment of the system with the installation and connection of the equipment**	**pcs**	**5**	**0,00**	**0,00**
05.03.03.06.07.13	Installation and connection to the performed installation of the reader	pcs	5	0,00	0,00
05.03.03.06.07.14	Installation and connection to the performed installation of buttons for permanent / temporary unlocking of electromagnetic holders	pcs	10	0,00	0,00
05.03.03.06.07.15	Mounting and connection to the performed installation of the electromagnetic holder	pcs	5	0,00	0,00
05.03.03.06.07.16	Measurement and testing of the performed installation	set	1	0,00	0,00
	TOTAL ACCESS CONTROL SYSTEM:				**136,00**

8	**BURGLAR SIGNALING SYSTEM**				
	Works				
05.03.03.06.08.15	Laying cables in already prepared routes.	m	600	0,34	204,00
05.03.03.06.08.16	**Assembly, installation and connection to the performed installation of the housing for storing the equipment of the system with the installation and connection of the equipment**	**pcs**	**1**	**0,00**	**0,00**
05.03.03.06.08.17	Mounting and connection to the performed installation of the motion sensor	pcs	6	0,00	0,00
05.03.03.06.08.18	Installation and connection to the performed installation of glass breakage detectors	pcs	8	0,00	0,00
05.03.03.06.08.19	Installation and connection to the performed installation of alarm sirens	pcs	4	0,00	0,00
05.03.03.06.08.20	Mounting and connecting to the performed keyboard installation	pcs	5	0,00	0,00
05.03.03.06.08.21	Measurement and testing of the performed installation	set	1	0,00	0,00
	TOTAL BURGLAR SIGNALING SYSTEM:				**204,00**
9	**AUTOMATIC FIRE ALARM SYSTEM**				
	Material				
05.03.03.06.09.15	Halogen free installation corrugated hose with all fittings and clamps and clamps (3pcs / 1m), (installation in the building), (Dietzel Univolt FX) or equivalent. Outside diameter:				
	- Ø40	m	20	0,50	10,00
	- Ø36	m	900	0,33	297,00
	- Ø16	m	200	0,15	30,00
05.03.03.06.09.16	Self-adhesive plastic ducts without halogen elements dimensions:				
	- 16x16x1000mm	m	20	2,66	53,20
	- 16x40x1000mm	m	30	4,33	129,90
	Works				
05.03.03.06.09.20	**Assembly and installation of cabinets and installation of equipment in the cabinet**	**pcs**	**2**	**0,00**	**0,00**
05.03.03.06.09.21	Installation of installation pipes in the wall / ceiling / suspended ceiling / double floor, with wall tuning, perforation of openings, installation of junction boxes.	m	1120	1,77	1.982,40
05.03.03.06.09.22	Installation of self-adhesive plastic pipes	m	50	0,44	22,00
05.03.03.06.09.23	Laying cables in already prepared routes.	m	3100	0,34	1.054,00
05.03.03.06.09.24	All works on closing the penetration of the installation with fire-fighting mixture (in accordance with the valid regulations) and coating of cables, pipes, ducts, etc. in the length of one meter on each side of the penetration.	m²	1	125,00	125,00

05.03.03.06.09.25	Installation and connection to the installed installation of an addressable fire control panel	pcs	1	0,00	0,00
05.03.03.06.09.26	Mounting and connection to the installed relay module installation	pcs	2	0,00	0,00
05.03.03.06.09.27	Installation and connection to the installed battery installation	pcs	4	0,00	0,00
05.03.03.06.09.28	Installation and connection to the installed installation of the alarm machine	pcs	1	0,00	0,00
05.03.03.06.09.29	Mounting on the base and connecting to the installed installation of an addressable automatic detector	pcs	23	0,00	0,00
05.03.03.06.09.30	Installation and connection to the installed installation of a manual addressable detector	pcs	8	0,00	0,00
05.03.03.06.09.31	Installation and connection to the installed alarm siren installation	pcs	4	0,00	0,00
05.03.03.06.09.32	Installation and connection to the installed installation of a parallel indicator light	pcs	10	0,00	0,00
05.03.03.06.09.33	Installation and connection to the installed installation of an additional base for hanging fire detectors on non-standard surfaces (concrete beams, roof structure, uneven walls, ...), with all the necessary material	pcs	12	0,00	0,00
05.03.03.06.09.34	Measurement and testing of the performed installation	set	1	0,00	0,00
	TOTAL AUTOMATIC FIRE ALARM SYSTEM:				**3.703,50**
10	**ENVIRONMENTAL MONITORING SYSTEM**				
	Works				
05.03.03.06.10.08	Installation and connection of equipment to the performed installation	set	1	0,00	0,00
	TOTAL ENVIRONMENTAL MONITORING SYSTEM:				**0,00**
11	**Introduction of cables owned by Telekom Srbija a.d.**				
	Material				
05.03.03.06.11.02	Halogen free installation corrugated hose with all fittings and clamps and clamps (3pcs / 1m), (installation in the building), (Dietzel Univolt FX) or equivalent. Outside diameter:				
	- Ø40	m	10	0,50	5,00
	- Ø36	m	50	0,33	16,50
	Works				

05.03.03.06.11.05	**Assembly and installation of a built-in cabinet and installation of equipment in the cabinet**	**pcs**	**1**	**0,00**	**0,00**
05.03.03.06.11.06	Installation of installation pipes in the wall / ceiling / suspended ceiling / double floor, with wall tuning, perforation of openings, installation of junction boxes.	m	60	1,77	106,20
05.03.03.06.11.07	Laying cables in already prepared routes.	m	80	0,34	27,20
05.03.03.06.11.08	**Design and preparation of documentation**	**set**	**1**	**0,00**	**0,00**
	TOTAL INTRODUCTION OF CABLES:				**154,90**
2	**MAIN CABLE ROUTES**				**7.752,20**
3	**COMMON COMPUTER NETWORK**				**1.485,70**
4	**VoIP COMMUNICATION SYSTEM**				**0,00**
5	**VIDEO SECURITY SYSTEM**				**0,00**
6	**CLOCK SYSTEM**				**0,00**
7	**ACCESS CONTROL SYSTEM**				**136,00**
8	**BURGLAR SIGNALING SYSTEM**				**204,00**
9	**AUTOMATIC FIRE ALARM SYSTEM**				**3.703,50**
10	**ENVIRONMENTAL MONITORING SYSTEM**				**0,00**
11	**Introduction of cables owned by Telekom Srbija a.d.**				**154,90**
	TOTAL (EUR):				**13.436,30**

BILL OF QUANTITIES

5 / 3.3.7.1 INFORMATION AND COMMUNICATION SYSTEMS - CRITICAL LOCATIONS

Bridge

Number	Description of works	Measurement unit	Quantity.	Unit price (EUR)	Price (EUR)
			A	B	AxB
NOTE					
1	**MAIN CABLE ROUTES**				
	Material				
05.03.03.07.01.01.01	PE pipe Ø 50	m	60	1	60,00
05.03.03.07.01.01.02	Fittings for forking, turning and diameter reduction for PVCØ 50 pipes.	pcs	12	2,9	34,80
05.03.03.07.01.01.03	Sand	m^3	2	20	40,00
05.03.03.07.01.01.04	Attention tape yellow - 80 mm	kg	1	20	20,00
05.03.03.07.01.01.05	PVC shield - 1m	pcs	60	5	300,00
05.03.03.07.01.01.06	Procurement, delivery PE pipe with stainless steel clamps, complete with all necessary equipment and works for guiding the installation along the pole of the catenary				
	- Ø36	m	20	2,5	50,00
05.03.03.07.01.01.07	Small installation material (bag screws, arc clamps, dowels ...)	set	1	80	80,00
	Works				
05.03.03.07.01.01.08	Marking of routes and objects, all geodetic measurements, ie. transfer of data from the project to the field and vice versa, insurance, renewal and maintenance of marked signs on the field for the entire period of construction, ie until the handover of works to the Investor.	m	60	0	0,00
05.03.03.07.01.01.09	Excavation of the trench along the new route 0.5 m wide and up to 1 m deep. With trench bottom planning and with expansion and underbuilding as needed. Making the bedrock, placing a layer of sand d = 10 cm, the corrugation and the attention of the strip with backfilling with compaction in at least three layers, removal of excess soil to the marked landfill.	m	60	10	600,00
05.03.03.07.01.01.10	Laying of pipes in prepared routes with installation of fittings	m	60	0,3	18,00
05.03.03.07.01.01.11	Installation of installation pipes in lighting poles and in the canopy	m	20	1,35	27,00
05.03.03.07.01.01.12	Geodetic survey and entry in the cadastre of underground installations	m	50	0	0,00
	TOTAL MAIN CABLE ROUTES:				**1.229,80**

2	**COMMON COMPUTER NETWORK**				
	Works				
05.03.03.07.01.02.10	Material, production, laying of foundations, assembly and installation of external cabinet with installation and connection of equipment. With all the necessary material and work to bring it to full functionality and stability	set	2	305,00	610,00
05.03.03.07.01.02.11	**Installation and connection of active network equipment with all necessary equipment**	**set**	**1**	**0,00**	**0,00**
05.03.03.07.01.02.12	Mounting a single mounting socket in the camera housing for a video surveillance system	pcs	6	6,65	39,90
05.03.03.07.01.02.13	Installation and connection of armored micro socket cat.6a	pcs	6	1,05	6,30
05.03.03.07.01.02.14	Laying copper cables in already prepared routes	m	360	0,34	122,40
05.03.03.07.01.02.15	Testing of copper lines of a common communication network with the development of measurement protocols	set	1	0,00	0,00
	TOTAL COMMON COMPUTER NETWORK				**778,60**
3	**VIDEO SECURITY SYSTEM**				
	Works				
05.03.03.07.01.03.08	**Installation and connection to the installed installation of a fixed IP camera**	**pcs**	**4**	**0,00**	**0,00**
05.03.03.07.01.03.09	**Mounting and connection to the installed installation of an aluminum housing for outdoor mounting for fixed IP cameras**	**pcs**	**4**	**0,00**	**0,00**
05.03.03.07.01.03.10	**Mounting and connection to the installed installation of brackets and adapters for the housing for fixed IP cameras**	**pcs**	**4**	**0,00**	**0,00**
05.03.03.07.01.03.11	**Installation and connection to the installed installation of the dome camera**	**pcs**	**2**	**0,00**	**0,00**
	TOTAL VIDEO SECURITY SYSTEM				**0,00**
1	**MAIN CABLE ROUTES**				**1.229,80**
2	**COMMON COMPUTER NETWORK**				**778,60**
3	**VIDEO SECURITY SYSTEM**				**0,00**
	TOTAL (EUR):				**2.008,40**

SAOBRAĆAJNI INSTITUT CIP

TRAFFIC INSTITUTE CIP d.o.o.
Nemanjina 6 / IV, 11000 Belgrade

BILL OF QUANTITIES

5 / 3.3.7.2 INFORMATION AND COMMUNICATION SYSTEMS - CRITICAL LOCATIONS

Location of the measuring point

Number	Description of works	Measurement unit	Quantity.	Unit price (EUR)	Price (EUR)
			A	B	AxB
NOTE					
1	**MAIN CABLE ROUTES**				
	Material				
05.03.03.07.02.01.01	PE pipe Ø 50	m	30	1	30,00
05.03.03.07.02.01.02	Fittings for forking, turning and diameter reduction for PVCØ 50 pipes.	pcs	6	2,9	17,40
05.03.03.07.02.01.03	Sand	m^3	1	20	20,00
05.03.03.07.02.01.04	Attention tape yellow - 80 mm	kg	1	20	20,00
05.03.03.07.02.01.05	PVC shield - 1m	pcs	30	5	150,00
05.03.03.07.02.01.06	Procurement, delivery PE pipe with stainless steel clamps, complete with all necessary equipment and works for guiding the installation along the pole of the catenary				
	- Ø36	m	5	2,5	12,50
05.03.03.07.02.01.07	Small installation material (bag screws, arc clamps, dowels ...)	set	1	80	80,00
	Works				
05.03.03.07.02.01.08	Marking of routes and objects, all geodetic measurements, ie. transfer of data from the project to the field and vice versa, insurance, renewal and maintenance of marked signs on the field for the entire period of construction, ie until the handover of works to the Investor.	m	30	0	0,00
05.03.03.07.02.01.09	Excavation of the trench along the new route 0.5 m wide and up to 1 m deep. With trench bottom planning and with expansion and underbuilding as needed. Making the bedrock, placing a layer of sand d = 10 cm, the corrugation and the attention of the strip with backfilling with compaction in at least three layers, removal of excess soil to the marked landfill.	m	30	10	300,00
05.03.03.07.02.01.10	Laying of pipes in prepared routes with installation of fittings	m	30	0,3	9,00
05.03.03.07.02.01.11	Installation of installation pipes in lighting poles and in the canopy	m	5	1,35	6,75
05.03.03.07.02.01.12	Geodetic survey and entry in the cadastre of underground installations	m	30	0	0,00
	TOTAL MAIN CABLE ROUTES:				**645,65**

2	**COMMON COMPUTER NETWORK**				
	Works				
05.03.03.07.02.02.10	Material, production, laying of foundations, assembly and installation of external cabinet with installation and connection of equipment. With all the necessary material and work to bring it to full functionality and stability	set	1	305,00	305,00
05.03.03.07.02.02.11	**Installation and connection of active network equipment with all necessary equipment**	**set**	**1**	**0,00**	**0,00**
05.03.03.07.02.02.12	Mounting a single mounting socket in the camera housing for a video surveillance system	pcs	2	6,65	13,30
05.03.03.07.02.02.13	Installation and connection of armored micro socket cat.6a	pcs	2	1,05	2,10
05.03.03.07.02.02.14	Laying copper cables in already prepared routes	m	120	0,34	40,80
05.03.03.07.02.02.15	Testing of copper lines of a common communication network with the development of measurement protocols	set	1	0,00	0,00
	TOTAL COMMON COMPUTER NETWORK:				**361,20**
3	**VIDEO SECURITY SYSTEM**				
	Works				
05.03.03.07.02.03.08	**Installation and connection to the installed installation of a fixed IP camera**	**pcs**	**1**	**0,00**	**0,00**
05.03.03.07.02.03.09	**Mounting and connection to the installed installation of an aluminum housing for outdoor mounting for fixed IP cameras**	**pcs**	**1**	**0,00**	**0,00**
05.03.03.07.02.03.10	**Mounting and connection to the installed installation of brackets and adapters for the housing for fixed IP cameras**	**pcs**	**1**	**0,00**	**0,00**
05.03.03.07.02.03.11	**Installation and connection to the installed installation of the dome camera**	**pcs**	**1**	**0,00**	**0,00**
	TOTAL VIDEO SECURITY SYSTEM				**0,00**
1	**MAIN CABLE ROUTES**				**645,65**
2	**COMMON COMPUTER NETWORK**				**361,20**
3	**VIDEO SECURITY SYSTEM**				**0,00**
	TOTAL (EUR):				**1.006,85**

BILL OF QUANTITIES

5 / 3.3.8 INFORMATION AND COMMUNICATION SYSTEMS - EVP, PSN AND PS FACILITIES

EVP INĐIJA

Number	Description of works	Measure ment unit	Quantity.	Unit price (EUR)	Price (EUR)
			A	B	AxB
NOTE					
1	**MAIN CABLE ROUTES**				
	Material				
05.03.03.08.01.01.01	Halogen free installation corrugated hose with all fittings and clamps and clamps (3pcs / 1m), (installation in the building), (Dietzel Univolt FX) or equivalent. Outside diameter:				
	- Ø40	m	650	0,5	325,00
	- Ø36	m	900	0,33	297,00
	- Ø16	m	650	0,15	97,50
05.03.03.08.01.01.02	Fire-fighting mixture which, with a fire barrier, forms a compact whole from the aspect of the required fire resistance, with the appropriate certificate, in accordance with the valid legal regulations	m²	2	125	250,00
05.03.03.08.01.01.03	Small installation material (bag screws, arc clamps, dowels ...)	set	1	80	80,00
	Works				
05.03.03.08.01.01.04	Installation of installation pipes in the wall / ceiling / suspended ceiling / double floor, with wall tuning, perforation of openings, installation of junction boxes.	m	2200	1,77	3.894,00
05.03.03.08.01.01.05	All works on closing the penetration of the installation with fire-fighting mixture (in accordance with the valid regulations) and coating of cables, pipes, ducts, etc. in the length of one meter on each side of the penetration.	m²	2	125	250,00
	TOTAL MAIN CABLE ROUTES:				**5.193,50**

2	**COMMON COMPUTER NETWORK**				
	Works				
05.03.03.08.01.02.13	Assembly and installation of 19 "freestanding cabinet 42U with installation and connection of equipment	set	1	125,00	125,00
05.03.03.08.01.02.14	**Installation and connection of active network equipment with all necessary equipment**	**set**	**1**	**0,00**	**0,00**
05.03.03.08.01.02.15	Installation of adapter 45x45mm for installation in the parapet and / or built-in and / or floor socket and / or set complete with mounting module for installation	pcs	12	4,00	48,00
05.03.03.08.01.02.16	Mounting shielded micro socket cat.6a for mounting in a socket for a structured cabling system	pcs	24	1,05	25,20
05.03.03.08.01.02.17	Mounting a single socket for mounting in an IP equipment enclosure	pcs	15	1,05	15,75
05.03.03.08.01.02.18	Installation and connection of armored micro socket cat.6a	pcs	39	1,05	40,95
05.03.03.08.01.02.19	Laying copper cables in already prepared routes	m	1400	0,34	476,00
05.03.03.08.01.02.20	Testing of copper lines of a common communication network with the development of measurement protocols	set	1	140,00	140,00
	TOTAL COMMON COMPUTER NETWORK:				**870,90**
3	**VoIP COMMUNICATION SYSTEM**				
05.03.03.08.01.03.03	Installation of equipment with connection to the performed installation with all necessary equipment	set	1	120,00	120,00
	TOTAL VoIP COMMUNICATION SYSTEM:				**120,00**
4	**VIDEO SECURITY SYSTEM**				
	Works				
05.03.03.08.01.03.06	**Installation and connection to the installed installation of the dome camera**	**pcs**	**13**	**0,00**	**0,00**
05.03.03.08.01.03.07	**Mounting and connection to the installed installation of the dome camera adapter**	**pcs**	**8**	**0,00**	**0,00**
	TOTAL VIDEO SECURITY SYSTEM:				**0,00**
5	**CLOCK SYSTEM**				
	Works				
05.03.03.08.01.05.04	Installation and connection to the performed installation of a one-sided analog secondary clock for indoor installation	pcs	2	0,00	0,00
05.03.03.08.01.05.05	Mounting bracket for one-sided and two-sided clock with a diameter of 30 cm for indoor mounting	pcs	2	0,00	0,00
	TOTAL CLOCK SYSTEM:				**0,00**

6	**ACCESS CONTROL SYSTEM**				
	Works				
05.03.03.08.01.06.12	Laying cables in already prepared routes.	m	800	0,34	272,00
05.03.03.08.01.06.13	**Assembly, installation and connection to the performed installation of the housing for storing the equipment of the system with the installation and connection of the equipment**	**pcs**	**1**	**0,00**	**0,00**
05.03.03.08.01.06.14	Installation and connection to the performed installation of the reader	pcs	5	0,00	0,00
05.03.03.08.01.06.15	Installation and connection to the performed installation of buttons for permanent / temporary unlocking of electromagnetic holders	pcs	10	0,00	0,00
05.03.03.08.01.06.16	Mounting and connection to the performed installation of the electromagnetic holder	pcs	5	0,00	0,00
05.03.03.08.01.06.17	Measurement and testing of the performed installation	set	1	0,00	0,00
	TOTAL ACCESS CONTROL SYSTEM:				**272,00**
7	**BURGLAR SIGNALING SYSTEM**				
	Works				
05.03.03.08.01.07.15	Laying cables in already prepared routes.	m	400	0,34	136,00
05.03.03.08.01.07.16	**Assembly, installation and connection to the performed installation of the housing for storing the equipment of the system with the installation and connection of the equipment**	**pcs**	**1**	**0,00**	**0,00**
05.03.03.08.01.07.17	Mounting and connection to the performed installation of the motion sensor	pcs	5	0,00	0,00
05.03.03.08.01.07.18	Installation and connection to the performed installation of glass breakage detectors	pcs	2	0,00	0,00
05.03.03.08.01.07.19	Installation and connection to the performed installation of alarm sirens	pcs	3	0,00	0,00
05.03.03.08.01.07.20	Installation and connection to the performed keyboard installation	pcs	2	0,00	0,00
05.03.03.08.01.07.21	Measurement and testing of the performed installation	set	1	0,00	0,00
	TOTAL BURGLAR SIGNALING SYSTEM:				**136,00**
8	**AUTOMATIC FIRE ALARM SYSTEM**				
	Material				
05.03.03.08.01.08.16	Halogen free installation corrugated hose with all fittings and clamps and clamps (3pcs / 1m), (installation in the building), (Dietzel Univolt FX) or equivalent. Outside diameter:				
	- Ø40	m	50	0,50	25,00
	- Ø36	m	200	0,33	66,00
	- Ø16	m	200	0,15	30,00

	Works				0,00
05.03.03.08.01.08.20	Installation of installation pipes in the wall / ceiling / suspended ceiling / double floor, with wall tuning, perforation of openings, installation of junction boxes.	m	450	1,77	796,50
05.03.03.08.01.08.21	Laying cables in already prepared routes.	m	400	0,34	136,00
05.03.03.08.01.08.22	All works on closing the penetration of the installation with fire-fighting mixture (in accordance with the valid regulations) and coating of cables, pipes, ducts, etc. in the length of one meter on each side of the penetration.	m²	2	125,00	250,00
05.03.03.08.01.08.23	**Installation and connection to the installed installation of an addressable fire control panel**	pcs	1	0,00	0,00
05.03.03.08.01.08.24	**Mounting and connection to the installed relay module installation**	pcs	1	0,00	0,00
05.03.03.08.01.08.25	**Installation and connection to the installed battery installation**	pcs	4	0,00	0,00
05.03.03.08.01.08.26	**Installation and connection to the installed installation of the alarm machine**	pcs	1	0,00	0,00
05.03.03.08.01.08.27	**Mounting on the base and connecting to the installed installation of an addressable automatic detector**	pcs	15	0,00	0,00
05.03.03.08.01.08.28	**Installation and connection to the installed installation of a manual addressable detector**	pcs	6	0,00	0,00
05.03.03.08.01.08.29	**Installation and connection to the installed alarm siren installation**	pcs	5	0,00	0,00
05.03.03.08.01.08.30	**Mounting and connection to the installed installation of the input module**	pcs	1	0,00	0,00
05.03.03.08.01.08.31	**Installation and connection to the installed installation of a magnetic contact for monitoring the openness of fire doors**	pcs	1	0,00	0,00
05.03.03.08.01.08.32	**Installation and connection to the installed installation of the input module for connection to the substation**	pcs	1	0,00	0,00
05.03.03.08.01.08.33	**Installation and connection to the installed installation of an additional base for hanging fire detectors on non-standard surfaces (concrete beams, roof structure, uneven walls, ...), with all the necessary material**	pcs	15	0,00	0,00
05.03.03.08.01.08.34	**Measurement and testing of the performed installation**	set	1	0,00	0,00
	TOTAL AUTOMATIC FIRE ALARM SYSTEM:				**1.303,50**

9	**STABLE FIRE ALARM SYSTEM WITH EXTINGUISHING MANAGEMENT**				
	Material				
05.03.03.08.01.09.11	Halogen free installation corrugated hose with all fittings and clamps and clamps (3pcs / 1m), (installation in the building), (Dietzel Univolt FX) or equivalent. Outside diameter:				
	- Ø40	m	40	0,50	20,00
	- Ø36	m	220	0,33	72,60
	- Ø16	m	100	0,15	15,00
	Works				
05.03.03.08.01.09.14	Installation of installation pipes in the wall / ceiling / suspended ceiling / double floor, with wall tuning, perforation of openings, installation of junction boxes.	m	360	1,77	637,20
05.03.03.08.01.09.15	Laying cables in already prepared routes.	m	250	0,34	85,00
05.03.03.08.01.09.16	All works on closing the penetration of the installation with fire-fighting mixture (in accordance with the valid regulations) and coating of cables, pipes, ducts, etc. in the length of one meter on each side of the penetration.	m^2	2	125,00	250,00
05.03.03.08.01.09.17	**Installation and connection to the installed control panel installation**	**pcs**	**1**	**0,00**	**0,00**
05.03.03.08.01.09.18	**Mounting on the base and connecting to the installed installation of the automatic detector**	**pcs**	**8**	**0,00**	**0,00**
05.03.03.08.01.09.19	**Installation and connection to the installed installation of the manual button**	**pcs**	**2**	**0,00**	**0,00**
05.03.03.08.01.09.20	**Installation and connection to the installed alarm siren installation**	**pcs**	**1**	**0,00**	**0,00**
05.03.03.08.01.09.21	**Installation and connection to the installed installation of the lighting panel**	**pcs**	**2**	**0,00**	**0,00**
05.03.03.08.01.09.22	**Installation and connection to the installed installation of a parallel indicator light**	**pcs**	**4**	**0,00**	**0,00**
05.03.03.08.01.09.23	**Installation and connection to the installed installation of a magnetic contact for monitoring the openness of fire doors**	**pcs**	**1**	**0,00**	**0,00**
05.03.03.08.01.09.24	**Measurement and testing of the performed installation**	**set**	**1**	**0,00**	**0,00**
	TOTAL STABLE FIRE ALARM SYSTEM WITH EXTINGUISHING MANAGEMENT:				**1.079,80**

10	**ENVIRONMENTAL MONITORING SYSTEM**				
	Works				
05.03.03.08.01.10.10	Installation and connection of equipment to the performed installation	set	1	180,00	180,00
	TOTAL ENVIRONMENTAL MONITORING SYSTEM:				**180,00**
1	**MAIN CABLE ROUTES**				**5.193,50**
2	**COMMON COMPUTER NETWORK**				**870,90**
3	**VoIP COMMUNICATION SYSTEM**				**120,00**
4	**VIDEO SECURITY SYSTEM**				**0,00**
5	**CLOCK SYSTEM**				**0,00**
6	**ACCESS CONTROL SYSTEM**				**272,00**
7	**BURGLAR SIGNALING SYSTEM**				**136,00**
8	**AUTOMATIC FIRE ALARM SYSTEM**				**1.30[illegible]**
9	**STABLE FIRE ALARM SYSTEM WITH EXTINGUISHING MANAGEMENT**				**1.079,80**
10	**ENVIRONMENTAL MONITORING SYSTEM**				**180,00**
	TOTAL (EUR):				**9.155,70**

BILL OF QUANTITIES

5 / 3.3.8 INFORMATION AND COMMUNICATION SYSTEMS - EVP, PSN AND PS FACILITIES

PSN BEŠKA

Number	Description of works	Measurement unit	Quantity.	Unit price (EUR)	Price (EUR)
			A	B	AxB
NOTE					
1	**MAIN CABLE ROUTES**				
	Material				
05.03.03.08.02.01.01	Halogen free installation corrugated hose with all fittings and clamps and clamps (3pcs / 1m), (installation in the building), (Dietzel Univolt FX) or equivalent. Outside diameter:				
	- Ø40	m	550	0,50	275,00
	- Ø36	m	750	0,33	247,50
	- Ø16	m	550	0,15	82,50
05.03.03.08.02.01.02	Fire-fighting mixture which, with a fire barrier, forms a compact whole from the aspect of the required fire resistance, with the appropriate certificate, in accordance with the valid legal regulations	m²	2	125,00	250,00
05.03.03.08.02.01.03	Small installation material (bag screws, arc clamps, dowels ...)	set	1	100,00	100,00
	Works				
05.03.03.08.02.01.04	Installation of installation pipes in the wall / ceiling / suspended ceiling / double floor, with wall tuning, perforation of openings, installation of junction boxes.	m	1850	1,77	3.274,50
05.03.03.08.02.01.05	All works on closing the penetration of the installation with fire-fighting mixture (in accordance with the valid regulations) and coating of cables, pipes, ducts, etc. in the length of one meter on each side of the penetration.	m²	2	125,00	250,00
05.03.03.08.02.01.06	Making the introduction to the building with 2xØ110 mm, with the installation of pipes and all the necessary materials and works	set	1	330,00	330,00
	TOTAL MAIN CABLE ROUTES:				**4.809,50**

2	**COMMON COMPUTER NETWORK**				
	Works				
05.03.03.08.02.02.13	Assembly and installation of 19 "freestanding cabinet 42U with installation and connection of equipment	set	1	125,00	125,00
05.03.03.08.02.02.14	**Installation and connection of active network equipment with all necessary equipment**	**set**	**1**	**0,00**	**0,00**
05.03.03.08.02.02.15	Installation of adapter 45x45mm for installation in the parapet and / or built-in and / or floor socket and / or set complete with mounting module for installation	pcs	9	4,00	36,00
05.03.03.08.02.02.16	Mounting shielded micro socket cat.6a for mounting in a socket for a structured cabling system	pcs	18	1,05	18,90
05.03.03.08.02.02.17	Mounting a single socket for mounting in an IP equipment enclosure	pcs	12	1,05	12,60
05.03.03.08.02.02.18	Installation and connection of armored micro socket cat.6a	pcs	30	1,05	31,50
05.03.03.08.02.02.19	Laying copper cables in already prepared routes	m	1000	0,34	340,00
05.03.03.08.02.02.20	Testing of copper lines of a common communication network with the development of measurement protocols	set	1	90,00	90,00
	УКУПНО ЗАЈЕДНИЧКА РАЧУНАРСКА МРЕЖА:				**654,00**
3	**VoIP COMMUNICATION SYSTEM**				
05.03.03.08.02.03.03	Installation of equipment with connection to the performed installation with all necessary equipment	set	1	0,00	0,00
	TOTAL VoIP COMMUNICATION SYSTEM:				**0,00**
4	**VIDEO SECURITY SYSTEM**				
	Works				
05.03.03.08.02.04.06	**Installation and connection to the installed installation of the dome camera**	**pcs**	**11**	**0,00**	**0,00**
05.03.03.08.02.04.07	**Mounting and connection to the installed installation of the dome camera adapter**	**pcs**	**8**	**0,00**	**0,00**
	TOTAL VIDEO SECURITY SYSTEM:				**0,00**
5	**CLOCK SYSTEM**				
	Works				
05.03.03.08.02.05.04	Installation and connection to the performed installation of a one-sided analog secondary clock for indoor installation	pcs	1	0,00	0,00
05.03.03.08.02.05.05	Mounting bracket for one-sided and two-sided clock with a diameter of 30 cm for indoor mounting	pcs	1	0,00	0,00
	TOTAL CLOCK SYSTEM:				**0,00**

6	**ACCESS CONTROL SYSTEM**				
	Works				
05.03.03.08.02.06.11	Laying cables in already prepared routes.	m	750	0,34	255,00
05.03.03.08.02.06.12	**Assembly, installation and connection to the performed installation of the housing for storing the equipment of the system with the installation and connection of the equipment**	**pcs**	**1**	**0,00**	**0,00**
05.03.03.08.02.06.13	Installation and connection to the performed installation of the reader	pcs	4	0,00	0,00
05.03.03.08.02.06.14	Installation and connection to the performed installation of buttons for permanent / temporary unlocking of electromagnetic holders	pcs	8	0,00	0,00
05.03.03.08.02.06.15	Mounting and connection to the performed installation of the electromagnetic holder	pcs	4	0,00	0,00
05.03.03.08.02.06.16	Measurement and testing of the performed installation	set	1	0,00	0,00
	TOTAL ACCESS CONTROL SYSTEM:				**255,00**
7	**BURGLAR SIGNALING SYSTEM**				
	Works				
05.03.03.08.02.07.15	Laying cables in already prepared routes.	m	300	0,34	102,00
05.03.03.08.02.07.16	**Assembly, installation and connection to the performed installation of the housing for storing the equipment of the system with the installation and connection of the equipment**	**pcs**	**1**	**0,00**	**0,00**
05.03.03.08.02.07.17	Mounting and connection to the performed installation of the motion sensor	pcs	3	0,00	0,00
05.03.03.08.02.07.18	Installation and connection to the performed installation of glass breakage detectors	pcs	4	0,00	0,00
05.03.03.08.02.07.19	Installation and connection to the performed installation of alarm sirens	pcs	2	0,00	0,00
05.03.03.08.02.07.20	Installation and connection to the performed keyboard installation	pcs	3	0,00	0,00
05.03.03.08.02.07.21	Measurement and testing of the performed installation	set	1	0,00	0,00
	TOTAL BURGLAR SIGNALING SYSTEM:				**102,00**
8	**AUTOMATIC FIRE ALARM SYSTEM**				
	Material				
05.03.03.08.02.08.14	Halogen free installation corrugated hose with all fittings and clamps and clamps (3pcs / 1m), (installation in the building), (Dietzel Univolt FX) or equivalent. Outside diameter:				
	- Ø40	m	20	0,50	10,00
	- Ø36	m	140	0,33	46,20
	- Ø16	m	110	0,15	16,50
	Works				
05.03.03.08.02.08.18	Installation of installation pipes in the wall / ceiling / suspended ceiling / double floor, with wall tuning, perforation of openings, installation of junction boxes.	m	270	1,77	477,90

05.03.03.08.02.08.19	Laying cables in already prepared routes.	m	210	0,34	71,40
05.03.03.08.02.08.20	All works on closing the penetration of the installation with fire-fighting mixture (in accordance with the valid regulations) and coating of cables, pipes, ducts, etc. in the length of one meter on each side of the penetration.	m²	2	125,00	250,00
05.03.03.08.02.08.21	Installation and connection to the installed installation of an addressable fire control panel	pcs	1	0,00	0,00
05.03.03.08.02.08.22	Mounting and connection to the installed relay module installation	pcs	1	0,00	0,00
05.03.03.08.02.08.23	Installation and connection to the installed battery installation	pcs	4	0,00	0,00
05.03.03.08.02.08.24	Installation and connection to the installed installation of the alarm machine	pcs	1	0,00	0,00
05.03.03.08.02.08.25	Mounting on the base and connecting to the installed installation of an addressable automatic detector	pcs	13	0,00	0,00
05.03.03.08.02.08.26	Installation and connection to the installed installation of a manual addressable detector	pcs	4	0,00	0,00
05.03.03.08.02.08.27	Installation and connection to the installed alarm siren installation	pcs	3	0,00	0,00
05.03.03.08.02.08.28	Installation and connection to the installed installation of a parallel indicator light	pcs	4	0,00	0,00
05.03.03.08.02.08.29	Installation and connection to the installed installation of an additional base for hanging fire detectors on non-standard surfaces (concrete beams, roof structure, uneven walls, ...), with all the necessary material	pcs	13	0,00	0,00
05.03.03.08.02.08.30	Measurement and testing of the performed installation	set	1	0,00	0,00
	TOTAL AUTOMATIC FIRE ALARM SYSTEM:				**872,00**
1	**MAIN CABLE ROUTES**				**4.809,50**
2	**COMMON COMPUTER NETWORK**				**654,00**
3	**СИСТЕМ VoIP КОМУНИКАЦИЈЕ**				**0,00**
4	**VIDEO SECURITY SYSTEM**				**0,00**
5	**CLOCK SYSTEM**				**0,00**
6	**ACCESS CONTROL SYSTEM**				**255,00**
7	**BURGLAR SIGNALING SYSTEM**				**102,00**
8	**AUTOMATIC FIRE ALARM SYSTEM**				**872,00**
	TOTAL (EUR):				**6.692,50**

BILL OF QUANTITIES

5 / 3.3.8 INFORMATION AND COMMUNICATION SYSTEMS - EVP, PSN AND PS FACILITIES

PS SREMSKI KARLOVCI

Number	Description of works	Measurement unit	Quantity.	Unit price (EUR)	Price (EUR)
			A	B	AxB
NOTE					
1	**MAIN CABLE ROUTES**				
	Material				
05.03.03.08.03.01.01	Halogen free installation corrugated hose with all fittings and clamps and clamps (3pcs / 1m), (installation in the building), (Dietzel Univolt FX) or equivalent. Outside diameter:				
	- Ø40	m	550	0,50	275,00
	- Ø36	m	750	0,33	247,50
	- Ø16	m	550	0,15	82,50
05.03.03.08.03.01.02	Fire-fighting mixture which, with a fire barrier, forms a compact whole from the aspect of the required fire resistance, with the appropriate certificate, in accordance with the valid legal regulations	m²	2	125,00	250,00
05.03.03.08.03.01.03	Small installation material (bag screws, arc clamps, dowels ...)	set	1	80,00	80,00
	Works				
05.03.03.08.03.01.04	Installation of installation pipes in the wall / ceiling / suspended ceiling / double floor, with wall tuning, perforation of openings, installation of junction boxes.	m	1850	1,77	3.274,50
05.03.03.08.03.01.05	All works on closing the penetration of the installation with fire-fighting mixture (in accordance with the valid regulations) and coating of cables, pipes, ducts, etc. in the length of one meter on each side of the penetration.	m²	2	125,00	250,00
05.03.03.08.03.01.06	Making the introduction to the building with 2xØ110 mm, with the installation of pipes and all the necessary materials and works	set	1	225,00	225,00
	TOTAL MAIN CABLE ROUTES:				**4.684,50**

2	**COMMON COMPUTER NETWORK**				
	Works				
05.03.03.08.03.02.13	Assembly and installation of 19 "freestanding cabinet 42U with installation and connection of equipment	set	1	125,00	125,00
05.03.03.08.03.02.14	**Installation and connection of active network equipment with all necessary equipment**	**set**	**1**	**0,00**	**0,00**
05.03.03.08.03.02.15	Installation of adapter 45h45mm for installation in the parapet and / or built-in and / or floor socket and / or set complete with mounting module for installation	pcs	9	4,00	36,00
05.03.03.08.03.02.16	Mounting shielded micro socket cat.6a for mounting in a socket for a structured cabling system	pcs	18	1,05	18,90
05.03.03.08.03.02.17	Mounting a single socket for mounting in an IP equipment enclosure	pcs	12	1,05	12,60
05.03.03.08.03.02.18	Installation and connection of armored micro socket cat.6a	pcs	30	1,05	31,50
05.03.03.08.03.02.19	Laying copper cables in already prepared routes	m	1000	0,34	34[illegible]0
05.03.03.08.03.02.20	Testing of copper lines of a common communication network with the development of measurement protocols	set	1	130,00	130,00
	TOTAL COMMON COMPUTER NETWORK:				**694,00**
3	**VoIP COMMUNICATION SYSTEM**				
05.03.03.08.03.03.03	Installation of equipment with connection to the performed installation with all necessary equipment	set	1	120,00	120,00
	TOTAL VoIP COMMUNICATION SYSTEM:				**120,00**
4	**VIDEO SECURITY SYSTEM**				
	Works				
05.03.03.08.03.04.06	**Installation and connection to the installed installation of the dome camera**	**pcs**	**11**	**0,00**	**0,00**
05.03.03.08.03.04.07	**Mounting and connection to the installed installation of the dome camera adapter**	**pcs**	**8**	**0,00**	**0**
	TOTAL VIDEO SECURITY SYSTEM:				**0,00**
5	**CLOCK SYSTEM**				
	Works				
05.03.03.08.03.05.04	Installation and connection to the performed installation of a one-sided analog secondary clock for indoor installation	pcs	1	0,00	0,00
05.03.03.08.03.05.05	Mounting bracket for one-sided and two-sided clock with a diameter of 30 cm for indoor mounting	pcs	1	0,00	0,00
	TOTAL CLOCK SYSTEM:				**0,00**

6	**ACCESS CONTROL SYSTEM**				
	Works				
05.03.03.08.03.06.11	Laying cables in already prepared routes.	m	750	0,34	255,00
05.03.03.08.03.06.12	**Assembly, installation and connection to the performed installation of the housing for storing the equipment of the system with the installation and connection of the equipment**	**pcs**	**1**	**0,00**	**0,00**
05.03.03.08.03.06.13	Installation and connection to the performed installation of the reader	pcs	4	0,00	0,00
05.03.03.08.03.06.14	Installation and connection to the performed installation of buttons for permanent / temporary unlocking of electromagnetic holders	pcs	8	0,00	0,00
05.03.03.08.03.06.15	Mounting and connection to the performed installation of the electromagnetic holder	pcs	4	0,00	0,00
05.03.03.08.03.06.16	Measurement and testing of the performed installation	set	1	0,00	0,00
	TOTAL ACCESS CONTROL SYSTEM:				**255,00**
7	**BURGLAR SIGNALING SYSTEM**				
	Works				
05.03.03.08.03.07.15	Laying cables in already prepared routes.	m	300	0,34	102,00
05.03.03.08.03.07.16	**Assembly, installation and connection to the performed installation of the housing for storing the equipment of the system with the installation and connection of the equipment**	**pcs**	**1**	**0,00**	**0,00**
05.03.03.08.03.07.17	Mounting and connection to the performed installation of the motion sensor	pcs	3	0,00	0,00
05.03.03.08.03.07.18	Installation and connection to the performed installation of glass breakage detectors	pcs	4	0,00	0,00
05.03.03.08.03.07.19	Installation and connection to the performed installation of alarm sirens	pcs	2	0,00	0,00
05.03.03.08.03.07.20	Installation and connection to the performed keyboard installation	pcs	3	0,00	0,00
05.03.03.08.03.07.21	Measurement and testing of the performed installation	set	1	0,00	0,00
	TOTAL BURGLAR SIGNALING SYSTEM:				**102,00**
8	**AUTOMATIC FIRE ALARM SYSTEM**				
	Material				
05.03.03.08.03.08.14	Halogen free installation corrugated hose with all fittings and clamps and clamps (3pcs / 1m), (installation in the building), (Dietzel Univolt FX) or equivalent. Outside diameter:				
	- Ø40	m	20	0,50	10,00
	- Ø36	m	140	0,33	46,20
	- Ø16	m	110	0,15	16,50

	Works				
05.03.03.08.03.08.18	Installation of installation pipes in the wall / ceiling / suspended ceiling / double floor, with wall tuning, perforation of openings, installation of junction boxes.	m	270	1,77	477,90
05.03.03.08.03.08.19	Laying cables in already prepared routes.	m	210	0,34	71,40
05.03.03.08.03.08.20	All works on closing the penetration of the installation with fire-fighting mixture (in accordance with the valid regulations) and coating of cables, pipes, ducts, etc. in the length of one meter on each side of the penetration.	m²	2	125,00	250,00
05.03.03.08.03.08.21	**Installation and connection to the installed installation of an addressable fire control panel**	pcs	1	0,00	0,00
05.03.03.08.03.08.22	**Mounting and connection to the installed relay module installation**	pcs	1	0,00	0,00
05.03.03.08.03.08.23	**Installation and connection to the installed battery installation**	pcs	4	0,00	0,00
05.03.03.08.03.08.24	**Installation and connection to the installed installation of the alarm machine**	pcs	1	0,00	0,00
05.03.03.08.03.08.25	**Mounting on the base and connecting to the installed installation of an addressable automatic detector**	pcs	13	0,00	0,00
05.03.03.08.03.08.26	**Installation and connection to the installed installation of a manual addressable detector**	pcs	4	0,00	0,00
05.03.03.08.03.08.27	**Installation and connection to the installed alarm siren installation**	pcs	3	0,00	0,00
05.03.03.08.03.08.28	**Installation and connection to the installed installation of a parallel indicator light**	pcs	4	0,00	0,00
05.03.03.08.03.08.29	**Installation and connection to the installed installation of an additional base for hanging fire detectors on non-standard surfaces (concrete beams, roof structure, uneven walls, ...), with all the necessary material**	pcs	13	0,00	0,00
05.03.03.08.03.08.30	**Measurement and testing of the performed installation**	set	1	0,00	0,00
	TOTAL AUTOMATIC FIRE ALARM SYSTEM:				**872,00**
1	**MAIN CABLE ROUTES**				**4.684,50**
2	**COMMON COMPUTER NETWORK**				**694,00**
3	**СИСТЕМ VoIP КОМУНИКАЦИЈЕ**				**120,00**
4	**VIDEO SECURITY SYSTEM**				**0,00**
5	**CLOCK SYSTEM**				**0,00**
6	**ACCESS CONTROL SYSTEM**				**255,00**
7	**BURGLAR SIGNALING SYSTEM**				**102,00**
8	**AUTOMATIC FIRE ALARM SYSTEM**				**872,00**
	TOTAL (EUR):				**6.727,50**

BILL OF QUANTITIES

5 / 3.3.9 INFORMATION AND COMMUNICATION SYSTEMS - OPEN GREEN FIELD BTS LOCATIONS

Number	Description	Unit	Quantity	Unit price (EUR)	Price(EUR)
			A	B	AxB
1	**MAIN CABLE ROUTES**				
	Material				
05.03.03.09.01.01	Perforated shielded sheet steel cable tray. Set with mounting accessories and elements for horizontal and vertical turns and mounting in a suspended ceiling, cross section 200mm x 50mm.	m	25	5,15	128,75
05.03.03.09.01.02	Halogen free installation corrugated hose with all fittings and clamps and clamps (3pcs / 1m), (installation in the building), (Dietzel Univolt FX) or equivalent. Outside diameter:				
	- Ø40	m	50	0,50	25,00
	- Ø36	m	150	0,33	49,50
	- Ø16	m	150	0,15	22,50
05.03.03.09.01.03	Installation ribbed hose with all fittings and clamps and clamps (3pcs / 1m), (off-site installation), (Dietzel Univolt FX) or equivalent. Outside diameter:				
	- Ø36	m	10	0,85	8,50
05.03.03.09.01.04	Procurement and delivery of fire-fighting mixture. Calculated with an average penetration size of 0.3x0.3 m	m²	2	130,00	260,00
05.03.03.09.01.05	Small installation material (bag screws, arc clamps, dowels ...)	set	1	100,00	100,00
	Works				
05.03.03.09.01.06	Installation of cable racks in the suspended ceiling / on the wall	m	25	0,65	16,25
05.03.03.09.01.07	Installation of installation pipes in the wall / ceiling / suspended ceiling / double floor, with wall tuning, perforation of openings, installation of junction boxes.	m	350	1,77	619,50
05.03.03.09.01.08	Installation of installation pipes in lighting poles and in the canopy	m	10	1,35	13,50
05.03.03.09.01.09	All works on closing the penetration of the installation with fire-fighting mixture (in accordance with the valid regulations) and coating of cables, pipes, ducts, etc. in the length of one meter on each side of the penetration.	m²	2	125,00	250,00
	IN TOTAL:	pcs	1		
	TOTAL MAIN CABLE ROUTES:				**1.493,50**

2	**COMMON COMPUTER NETWORK**				
	Works				
05.03.03.09.02.14	Assembly and installation of 19 "freestanding cabinet 42U with installation and connection of equipment	set	1	125,00	125,00
05.03.03.09.02.15	**Installation and connection of active network equipment with all necessary equipment**	**set**	**1**	**0,00**	**0,00**
05.03.03.09.02.16	Installation of adapter 45h45mm for installation in the parapet and / or built-in and / or floor socket and / or set complete with mounting module for installation	pcs	10	4,00	40,00
05.03.03.09.02.17	Mounting shielded micro socket cat.6a for mounting in a socket for a structured cabling system	pcs	20	1,05	21,00
05.03.03.09.02.18	Mounting a single socket for mounting in an IP equipment enclosure	pcs	8	1,05	8,40
05.03.03.09.02.19	Installation and connection of armored micro socket cat.6a	pcs	8	1,05	8,40
05.03.03.09.02.20	Laying copper cables in already prepared routes	m	950	0,34	323,00
05.03.03.09.02.21	Testing of copper lines of a common communication network with the development of measurement protocols	set	1	0,00	0,00
	TOTAL works:	set	1		
	TOTAL COMMON COMPUTER NETWORK:				**525,80**
3	**VIDEO SECURITY SYSTEM**				
	Works				
05.03.03.09.03.06	**Installation and connection to the installed installation of the dome camera**	**pcs**	**7**	**0,00**	**0,00**
05.03.03.09.03.07	**Mounting and connection to the installed installation of the dome camera adapter**	**pcs**	**4**	**0,00**	**0,00**
	IN TOTAL:	set	1		
	TOTAL VIDEO SECURITY SYSTEM:				**0,00**
4	**CLOCK SYSTEM**				
	Works				
05.03.03.09.04.04	Installation and connection to the performed installation of a one-sided analog secondary clock for indoor installation	pcs	1	0,00	0,00
05.03.03.09.04.05	Mounting bracket for one-sided and two-sided clock with a diameter of 30 cm for indoor mounting	pcs	1	0,00	0,00
	IN TOTAL:	set	1		
	TOTAL HOUR SYSTEM:				**0,00**

5	**ACCESS CONTROL SYSTEM**				
	Works				
05.03.03.09.05.11	Laying cables in already prepared routes.	m	240	0,34	81,60
05.03.03.09.05.12	Assembly, assembly and connection to the performed installation of the housing for storing the equipment of the system with the installation and connection of the equipment	pcs	1	0,00	0,00
05.03.03.09.05.13	Installation and connection to the performed installation of the reader	pcs	3	0,00	0,00
05.03.03.09.05.14	Installation and connection to the performed installation of buttons for permanent / temporary unlocking of electromagnetic holders	pcs	6	0,00	0,00
05.03.03.09.05.15	Mounting and connection to the performed installation of the electromagnetic holder	pcs	3	0,00	0,00
05.03.03.09.05.16	Measurement and testing of the performed installation	set	1	0,00	0,00
	IN TOTAL:	set	1		
	TOTAL ACCESS CONTROL SYSTEM:				**81,60**
6	**BURGLAR SIGNALING SYSTEM**				
	Works				
05.03.03.09.06.14	Laying cables in already prepared routes.	m	200	0,34	68,00
05.03.03.09.06.15	**Assembly, assembly and connection to the performed installation of the housing for storing the equipment of the system with the installation and connection of the equipment**	**pcs**	**1**	**0,00**	**0,00**
05.03.03.09.06.16	Mounting and connection to the performed installation of the motion sensor	pcs	3	0,00	0,00
05.03.03.09.06.17	Installation and connection to the performed installation of glass breakage detectors	pcs	1	0,00	0,00
05.03.03.09.06.18	Installation and connection to the performed installation of alarm sirens	pcs	1	0,00	0,00
05.03.03.09.06.19	Installation and connection to the performed keyboard installation	pcs	3	0,00	0,00
05.03.03.09.06.20	Measurement and testing of the performed installation	set	1	0,00	0,00
	IN TOTAL:	set	1		
	TOTAL BURGLAR SIGNALING SYSTEM:				**68,00**

7	**AUTOMATIC FIRE ALARM SYSTEM**				
	Material				
05.03.03.09.07.14	Halogen free installation corrugated hose with all fittings and clamps and clamps (3pcs / 1m), (installation in the building), (Dietzel Univolt FX) or equivalent. Outside diameter:				
	- Ø40	m	40	0,50	20,00
	- Ø36	m	190	0,33	62,70
	- Ø16	m	50	0,15	7,50
	Works				
05.03.03.09.07.18	Installation of installation pipes in the wall / ceiling / suspended ceiling / double floor, with wall tuning, perforation of openings, installation of junction boxes.	m	280	1,77	495,60
05.03.03.09.07.19	Laying cables in already prepared routes.	m	200	0,34	68,00
05.03.03.09.07.20	All works on closing the penetration of the installation with fire-fighting mixture (in accordance with the valid regulations) and coating of cables, pipes, ducts, etc. in the length of one meter on each side of the penetration.	m^2	2	125,00	250,00
05.03.03.09.07.21	**Installation and connection to the installed installation of an addressable fire control panel**	**pcs**	**1**	**0,00**	**0,00**
05.03.03.09.07.22	**Mounting and connection to the installed relay module installation**	**pcs**	**1**	**0,00**	**0,00**
05.03.03.09.07.23	**Installation and connection to the installed battery installation**	**pcs**	**4**	**0,00**	**0,00**
05.03.03.09.07.24	**Installation and connection to the installed installation of the alarm machine**	**pcs**	**1**	**0,00**	**0,00**
05.03.03.09.07.25	**Mounting on the base and connecting to the installed installation of an addressable automatic detector**	**pcs**	**1**	**0,00**	**0,00**
05.03.03.09.07.26	**Installation and connection to the installed installation of a manual addressable detector**	**pcs**	**3**	**0,00**	**0,00**
05.03.03.09.07.27	**Installation and connection to the installed alarm siren installation**	**pcs**	**1**	**0,00**	**0,00**
05.03.03.09.07.28	**Mounting and connection to the installed installation of the input module**	**pcs**	**1**	**0,00**	**0,00**
05.03.03.09.07.29	**Installation and connection to the installed installation of the input module for connection to the substation**	**pcs**	**2**	**0,00**	**0,00**
05.03.03.09.07.30	**Installation and connection to the installed installation of an additional base for hanging fire detectors on non-standard surfaces (concrete beams, roof structure, uneven walls, ...), with all the necessary material**	**pcs**	**4**	**0,00**	**0,00**
05.03.03.09.07.31	**Measurement and testing of the performed installation**	**set**	**1**	**0,00**	**0,00**
	IN TOTAL:	set	1		
	TOTAL AUTOMATIC FIRE ALARM SYSTEM:				**903,80**

8	**STABLE FIRE ALARM SYSTEM WITH EXTINGUISHING MANAGEMENT**				
	Material				
05.03.03.09.08.15	Halogen free installation corrugated hose with all fittings and clamps and clamps (3pcs / 1m), (installation in the building), (Dietzel Univolt FX) or equivalent. Outside diameter:				
	- Ø40	m	10	0,55	5,50
	- Ø36	m	200	0,36	72,00
	- Ø16	m	150	0,16	24,00
	Works				
05.03.03.09.08.18	Installation of installation pipes in the wall / ceiling / suspended ceiling / double floor, with wall tuning, perforation of openings, installation of junction boxes.	m	360	1,77	637,20
05.03.03.09.08.19	Laying cables in already prepared routes.	m	450	0,34	153,00
05.03.03.09.08.20	All works on closing the penetration of the installation with fire-fighting mixture (in accordance with the valid regulations) and coating of cables, pipes, ducts, etc. in the length of one meter on each side of the penetration.	m^2	2	125,00	250,00
05.03.03.09.08.21	**Installation and connection to the installed control panel installation**	**pcs**	**2**	**0,00**	**0,00**
05.03.03.09.08.22	**Mounting on the base and connecting to the installed installation of the automatic detector**	**pcs**	**12**	**0,00**	**0,00**
05.03.03.09.08.23	**Installation and connection to the installed installation of the manual button**	**pcs**	**4**	**0,00**	**0,00**
05.03.03.09.08.24	**Installation and connection to the installed alarm siren installation**	**pcs**	**2**	**0,00**	**0,00**
05.03.03.09.08.25	**Installation and connection to the installed installation of the lighting panel**	**pcs**	**4**	**0,00**	**0,00**
05.03.03.09.08.26	**Installation and connection to the installed installation of a parallel indicator light**	**pcs**	**6**	**0,00**	**0,00**
05.03.03.09.08.27	**Installation and connection to the installed installation of a magnetic contact for monitoring the openness of fire doors**	**pcs**	**2**	**0,00**	**0,00**
05.03.03.09.08.28	**Installation, connection, adjustment of the aspiration detector**	**pcs**	**1**	**0,00**	**0,00**
05.03.03.09.08.29	**Assembly and installation of cabinets and installation of equipment in the cabinet**	**pcs**	**1**	**0,00**	**0,00**
05.03.03.09.08.30	**Measurement and testing of the performed installation**	**set**	**1**	**0,00**	**0,00**
	IN TOTAL:	set	1		
	TOTAL STABLE FIRE ALARM SYSTEM WITH EXTINGUISHING MANAGEMENT:				**1.141,70**

9	**ENVIRONMENTAL MONITORING SYSTEM**				
	Works				
05.03.03.09.09.9	Installation and connection of equipment to the performed installation	set	1	0,00	0,00
	IN TOTAL:	set	1		
	TOTAL ENVIRONMENTAL MONITORING SYSTEM:				**0,00**
1	**MAIN CABLE ROUTES**				**1.493,50**
2	**COMMON COMPUTER NETWORK**				**525,80**
3	**VIDEO SECURITY SYSTEM**				**0,00**
4	**CLOCK SYSTEM**				**0,00**
5	**ACCESS CONTROL SYSTEM**				**81,60**
6	**BURGLAR SIGNALING SYSTEM**				**68,00**
7	**AUTOMATIC FIRE ALARM SYSTEM**				**903,80**
8	**STABLE FIRE ALARM SYSTEM WITH EXTINGUISHING MANAGEMENT**				**1.141,70**
9	**ENVIRONMENTAL MONITORING SYSTEM**				**0,00**
	TOTAL(EUR):				**4.214,40**

BILL OF QUANTITIES

5 / 3.3.10 INFORMATION AND COMMUNICATION SYSTEMS - CHORTANOVCI TUNNEL

TUNNEL

Number	Description	Unit	Quantity	Unit price (EUR)	Price (EUR)
			A	B	AxB
NOTE					
1	**MAIN CABLE ROUTES**				
	Material				
05.03.03.10.01.01	PE pipe Ø 50	m	600	1,00	600,00
05.03.03.10.01.02	PE pipe Ø 50 flexible	m	200	1,20	240,00
05.03.03.10.01.03	PE pipe Ø 110 flexible	m	120	13,20	1.584,00
05.03.03.10.01.04	PE pipe inner diametar Ø 50 bendable in accordance with TSI-SRT.	m	50	3,20	160,00
05.03.03.10.01.05	Installation ribbed hose with all fittings and clamps and clamps (3pcs / 1m), (installation in the tunnel) in accordance with TSI-SRT. Outside diameter:				
	- Ø40		400	0,50	200,00
	- Ø36	m	400	0,33	132,00
05.03.03.10.01.06	Installation ribbed hose with all fittings and clamps and clamps (3pcs / 1m), (off-site installation), (Dietzel Univolt FX) or equivalent. Outside diameter:				
	- Ø36	m	100	1,20	120,00
05.03.03.10.01.07	Fire-fighting mixture which with a fire barrier forms a compact whole from the aspect of the required fire resistance, with the appropriate certificate, in accordance with the valid legal regulations and TSI SRT.	m²	4	125,00	500,00
05.03.03.10.01.08	Small installation material (bag screws, arc clamps, dowels ...)	set	1	120,00	120,00
	Works				
05.03.03.10.01.09	Laying of PE pipes in the prepared routes with the installation of fittings	m	970	0,30	291,00
05.03.03.10.01.10	Installation of installation pipes on the wall / ceiling with perforation of holes, installation of junction boxes.	m	800	1,77	1.416,00
05.03.03.10.01.11	Installation of installation pipes in lighting poles and in the canopy	m	100	1,35	135,00
05.03.03.10.01.12	All works on closing the penetration of the installation with fire-fighting mixture (in accordance with the valid regulations) and coating of cables, pipes, ducts, etc. in the length of one meter on each side of the penetration.	m²	4	125,00	500,00
	TOTAL MAIN CABLE ROUTES:				**5.998,00**

2	**COMMON COMPUTER NETWORK**				
	Cables for common communication network (structured cabling, video surveillance system, clock system)				
05.03.03.10.02.13	PE pipe Ø 40mm for installation of optical cable (in buildings, tunnels, sewers, ducts, ..) in accordance with TSI SRT.	m	3400	0,80	2.720,00
05.03.03.10.02.14	Coupling for plastic pipes PE Ø 40mm (in buildings, tunnels, sewers, ducts, ..) in accordance with TSI SRT ..	pcs	10	2,00	20,00
05.03.03.10.02.15	Pipe plug PE Ø 40mm (in buildings, tunnels, sewers, channels, ..) in accordance with TSI SRT.	pcs	20	1,88	37,60
	Works				
05.03.03.10.02.19	Material, production, laying of foundations, assembly and installation of external cabinet with installation and connection of equipment. With all the necessary material and work to bring it to full functionality and stability	set	2	305,00	610,00
05.03.03.10.02.20	Assembly and installation of a 19 "freestanding cabinet 21U with installation and connection of equipment	set	2	125,00	250,00
05.03.03.10.02.21	**Installation and connection of active network equipment with all necessary equipment**	**set**	**1**	**0,00**	**0,00**
05.03.03.10.02.22	Mounting a single socket for mounting in an IP equipment enclosure	pcs	40	4,00	160,00
05.03.03.10.02.23	Installation and connection of armored micro socket cat.6a	pcs	40	1,05	42,00
05.03.03.10.02.24	Laying copper cables in already prepared routes	m	1250	0,34	425,00
05.03.03.10.02.25	Laying optical cables in already prepared routes	m	3400	0,73	2.482,00
05.03.03.10.02.26	Laying PE pipes in the prepared routes with the installation of couplings and all necessary works	m	3400	0,30	1.020,00
05.03.03.10.02.27	Testing of copper lines of a common communication network with the development of measurement protocols	set	1	0,00	0,00
05.03.03.10.02.28	Measurements before laying on an optical cable with 24 o. v. (by cable length)	set	1	0,00	0,00
05.03.03.10.02.29	Measurements after laying on an optical cable with 24 o. v. (by cable length)	set	1	0,00	0,00
05.03.03.10.02.30	Final measurements on a 24 o optical cable. v. with the development of the protocol of final measurements on the optical cable on the measuring section without extensions	set	1	0,00	0,00
	TOTAL COMMON COMPUTER NETWORK:				**7.766,60**

3	**VIDEO SECURITY SYSTEM**				
	Works				
05.03.03.10.03.12	**Mounting and connecting to the installed box camera installation**	**pcs**	**20**	**0,00**	**0,00**
05.03.03.10.03.13	**Mounting and connecting to the installed box camera adapter installation**	**pcs**	**20**	**0,00**	**0,00**
05.03.03.10.03.14	**Installation and connection to the installed installation of the dome camera**	**pcs**	**4**	**0,00**	**0,00**
05.03.03.10.03.15	**Mounting and connection to the installed installation of the dome camera adapter**	**pcs**	**4**	**0,00**	**0,00**
	TOTAL VIDEO SECURITY SYSTEM:				**0,00**
4	**ACCESS CONTROL SYSTEM**				
	Works				
05.03.03.10.04.12	Laying cables in already prepared routes.	m	216	0,34	73,44
05.03.03.10.04.13	**Assembly, assembly and connection to the performed installation of the housing for storing the equipment of the system with the installation and connection of the equipment**	**pcs**	**1**	**0,00**	**0,00**
05.03.03.10.04.14	Installation and connection to the performed installation of the reader	pcs	3	0,00	0,00
05.03.03.10.04.15	Installation and connection to the performed installation of buttons for permanent / temporary unlocking of electromagnetic holders	pcs	6	0,00	0,00
05.03.03.10.04.16	Mounting and connection to the performed installation of the electromagnetic holder	pcs	3	0,00	0,00
05.03.03.10.04.17	Measurement and testing of the performed installation	set	1	0,00	0,00
	IN TOTAL:	**set**	**2**		**73,44**
	TOTAL ACCESS CONTROL SYSTEM:				**146,88**
5	**AUTOMATIC FIRE ALARM SYSTEM**				
	Material				
05.03.03.10.05.07	Halogen free installation corrugated hose with all fittings and clamps and clamps (3pcs / 1m), (installation in the building), (Dietzel Univolt FX) or equivalent. Outside diameter:				
	- Ø40	m	50	0,50	25,00
	- Ø36	m	300	0,33	99,00
	- Ø16	m	50	0,15	7,50
05.03.03.10.05.08	PE pipe Ø 50	m	3000	1,00	3.000,00
05.03.03.10.05.09	Installation ribbed hose with all fittings and clamps and clamps (3pcs / 1m), (installation in the tunnel) in accordance with TSI-SRT. Outside diameter:				
	- Ø40	m	50	0,50	25,00
	- Ø36	m	100	0,33	33,00
05.03.03.10.05.10	Installation ribbed hose with all fittings and clamps and clamps (3pcs / 1m), (tunnel installation) in accordance with FE180 / E90, External diameter:				
	- Ø40	m	50	0,50	25,00
	- Ø36	m	300	0,33	99,00

	Works				
05.03.03.10.05.13	**Assembly and installation of cabinets and installation of equipment in the cabinet**	**pcs**	**2**	**0,00**	**0,00**
05.03.03.10.05.14	Installation of installation pipes in the wall / ceiling / suspended ceiling / double floor, with wall tuning, perforation of openings, installation of junction boxes.	m	400	1,77	708,00
05.03.03.10.05.15	Laying of PE pipes in the prepared routes with the installation of fittings	m	3000	0,30	900,00
05.03.03.10.05.16	Laying cables in already prepared routes.	m	4570	0,34	1.553,80
05.03.03.10.05.17	All works on closing the penetration of the installation with fire-fighting mixture (in accordance with the valid regulations) and coating of cables, pipes, ducts, etc. in the length of one meter on each side of the penetration.	m^2	4	125,00	500,00
05.03.03.10.05.18	**Mounting on the base and connecting to the installed installation of an addressable automatic detector**	**pcs**	**10**	**0,00**	**0,00**
05.03.03.10.05.19	**Installation and connection to the installed installation of a manual addressable detector**	**pcs**	**4**	**0,00**	**0,00**
05.03.03.10.05.20	**Installation and connection to the installed installation of an additional base for hanging fire detectors on non-standard surfaces (concrete beams, roof structure, uneven walls, ...), with all the necessary material**	**pcs**	**10**	**0,00**	**0,00**
05.03.03.10.05.21	**Mounting and connection to the installed installation of the relay module**	**pcs**	**2**	**0,00**	**0,00**
05.03.03.10.05.22	**Measurement and testing of the performed installation**	**set**	**1**	**0,00**	**0,00**
	TOTAL AUTOMATIC FIRE ALARM SYSTEM:				**6.975,30**
6	**ALARM TELEPHONE SYSTEM**				
	Works				
05.03.03.10.06.07	**Laying cables in already prepared routes.**	**m**	**600**	**0,00**	**0,00**
05.03.03.10.06.08	**Installation and connection to the installed system server installation**	**pcs**	**1**	**0,00**	**0,00**
05.03.03.10.06.09	**Installation and connection to the installed operator terminal installation**	**pcs**	**1**	**0,00**	**0,00**
05.03.03.10.06.10	**Mounting (in the prepared opening / pole) and connection to the installed installation of the IP intercom terminal**	**pcs**	**10**	**0,00**	**0,00**
05.03.03.10.06.11	**Material, fabrication, foundation laying, assembly and assembly of stairs. With all the necessary material and work to bring it to full functionality and stability**	**pcs**	**4**	**0,00**	**0,00**
05.03.03.10.06.12	**Mounting and connection to the installed installation of a magnetic contact to monitor the door openness**	**pcs**	**12**	**0,00**	**0,00**
	TOTAL ALARM PHONE SYSTEM:				**0,00**

7	**TECHNICAL TELEPHONE SYSTEM**				
	Works				
05.03.03.10.07.06	**Installation and connection to the installed system server installation**	**pcs**	**1**	**0,00**	**0,00**
05.03.03.10.07.07	**Installation and connection to the installed operator terminal installation**	**pcs**	**1**	**0,00**	**0,00**
05.03.03.10.07.08	**Mounting (in the prepared opening / pole) and connection to the installed installation of the IP intercom terminal**	**pcs**	**4**	**0,00**	**0,00**
05.03.03.10.07.09	**Material, fabrication, foundation laying, assembly and assembly of stairs. With all the necessary material and work to bring it to full functionality and stability**	**pcs**	**4**	**0,00**	**0,00**
	TOTAL TECHNICAL TELEPHONE SYSTEM:				**0,00**
8	**TETRA SIGNAL DISTRIBUTION**				
	Works				
05.03.03.10.08.17	Assembly and installation of 19 "freestanding cabinet 42U with installation and connection of equipment	set	2	125,00	250,00
05.03.03.10.08.18	**Installation and connection of network equipment with all necessary equipment**	**set**	**1**	**0**	**0,00**
	TOTAL RADIO SIGNAL DISTRIBUTION:				**250,00**
1	**MAIN CABLE ROUTES**				**5.998,00**
2	**COMMON COMPUTER NETWORK**				**7.766,60**
3	**VIDEO SECURITY SYSTEM**				**0,00**
4	**ACCESS CONTROL SYSTEM**				**146,88**
5	**AUTOMATIC FIRE ALARM SYSTEM**				**6.975,30**
6	**ALARM TELEPHONE SYSTEM**				**0,00**
7	**TECHNICAL TELEPHONE SYSTEM**				**0,00**
8	**TETRA SIGNAL DISTRIBUTION**				**250,00**
	TOTAL (EUR):				**21.136,78**

BILL OF QUANTITIES

5 / 3.3.10 INFORMATION AND COMMUNICATION SYSTEMS - CHORTANOVCI TUNNEL

OPEN GREEN FIELD BTS LOCATIONS

Number	Description	Unit	Quantity	Unit price (EUR)	Price (EUR)
			A	B	AxB
NOTE 1. All items relating to material include delivery. 2. The specified types and manufacturers of individual parts of					
1	**MAIN CABLE ROUTES**				
	Material				
05.03.03.10.01.01	Perforated shielded sheet steel cable tray. Set with mounting accessories and elements for horizontal and vertical turns and mounting in a suspended ceiling, cross section 200mm x 50mm.	m	25	5,15	128,75
05.03.03.10.01.02	Halogen free installation corrugated hose with all fittings and clamps and clamps (3pcs / 1m), (installation in the building), (Dietzel Univolt FX) or equivalent. Outside diameter:				
	- Ø40	m	50	0,50	25,00
	- Ø36	m	150	0,33	49,50
	- Ø16	m	150	0,15	22,50
05.03.03.10.01.03	Installation ribbed hose with all fittings and clamps and clamps (3pcs / 1m), (off-site installation), (Dietzel Univolt FX) or equivalent. Outside diameter:				
	- Ø36	m	10	0,85	8,50
05.03.03.10.01.04	Fire-fighting mixture which with a fire barrier forms a compact whole from the aspect of the required fire resistance, with the appropriate certificate, in accordance with the valid legal regulations	m²	2	130,00	260,00
05.03.03.10.01.05	Small installation material (bag screws, arc clamps, dowels ...)	set	1	100,00	100,00
	Works				
05.03.03.10.01.06	Installation of cable racks in the suspended ceiling / on the wall	m	25	1,77	44,25
05.03.03.10.01.07	Installation of installation pipes in the wall / ceiling / suspended ceiling / double floor, with wall tuning, perforation of openings, installation of junction boxes.	m	350	1,77	619,50
05.03.03.10.01.08	Installation of installation pipes in lighting poles and in the canopy	m	10	1,35	13,50
05.03.03.10.01.09	All works on closing the penetration of the installation with fire-fighting mixture (in accordance with the valid regulations) and coating of cables, pipes, ducts, etc. in the length of one meter on each side of the penetration.	m²	2	125,00	250,00
	IN TOTAL:	pcs	2		1.521,50
	TOTAL MAIN CABLE ROUTES:				**3.043,00**

2	**COMMON COMPUTER NETWORK**				
	Cables for common communication network (structured cabling, video surveillance system, clock system)				
05.03.03.10.02.15	PE pipe Ø 40mm for installation of optical cable	m	150	0,80	120,00
05.03.03.10.02.16	Coupling for plastic pipes PE Ø 40mm.	pcs	10	2,00	20,00
05.03.03.10.02.17	Pipe plug PE Ø 40mm	pcs	10	1,88	18,80
	TOTAL cables:	pcs	2		**317,60**
	Works				
05.03.03.10.02.21	Assembly and installation of 19 "freestanding cabinet 42U with installation and connection of equipment	set	1	125,00	125,00
05.03.03.10.02.22	Material, production, laying of foundations, assembly and installation of external cabinet with installation and connection of equipment. With all the necessary material and work to bring it to full functionality and stability	set	1	305,00	305,00
05.03.03.10.02.23	**Installation and connection of active network equipment with all necessary equipment**	**set**	**1**	**0,00**	**0,00**
05.03.03.10.02.24	Installation of adapter 45h45mm for installation in the parapet and / or built-in and / or floor socket and / or set complete with mounting module for installation	pcs	8	4,00	32,00
05.03.03.10.02.25	Mounting shielded micro socket cat.6a for mounting in a socket for a structured cabling system	pcs	16	1,05	16,80
05.03.03.10.02.26	Mounting a single socket for mounting in an IP equipment enclosure	pcs	8	1,05	8,40
05.03.03.10.02.27	Installation and connection of armored micro socket cat.6a	pcs	8	1,05	8,40
05.03.03.10.02.28	Laying copper cables in already prepared routes	m	850	0,34	289,00
05.03.03.10.02.29	Laying optical cables in already prepared routes	m	150	0,73	109,50
05.03.03.10.02.30	Laying PE pipes in the prepared routes with the installation of couplings and all necessary works	m	150	0,29	43,50
05.03.03.10.02.31	Testing of copper lines of a common communication network with the development of measurement protocols	set	1	0,00	0,00
05.03.03.10.02.32	Measurements before laying on an optical cable with 8 o. v. (by cable length)	set	1	0,00	0,00
05.03.03.10.02.33	Measurements after laying on an optical cable with 8 o. v. (by cable length)	set	1	0,00	0,00
05.03.03.10.02.34	Final measurements on an optical cable with 8 o. v. with the development of the protocol of final measurements on the optical cable on the measuring section without extensions	set	1	0,00	0,00
	TOTAL works:	set	2		937,60
	TOTAL COMMON COMPUTER NETWORK:				**2.192,80**

3	**VIDEO SECURITY SYSTEM**				
	Works				
05.03.03.10.03.05	**Installation and connection to the installed installation of the dome camera**	**pcs**	**7**	**0,00**	**0,00**
05.03.03.10.03.06	**Mounting and connection to the installed installation of the dome camera adapter**	**pcs**	**4**	**0,00**	**0,00**
	IN TOTAL:	set	2		0,00
	TOTAL VIDEO SECURITY SYSTEM:				**0,00**
4	**CLOCK SYSTEM**				
	Works				
05.03.03.10.04.04	Installation and connection to the performed installation of a one-sided analog secondary clock for indoor installation	pcs	1	0,00	0,00
05.03.03.10.04.05	Mounting bracket for one-sided and two-sided clock with a diameter of 30 cm for indoor mounting	pcs	1	0,00	0,00
	IN TOTAL:	set	2		0,00
	TOTAL CLOCK SYSTEM:				**0,00**
5	**ACCESS CONTROL SYSTEM**				
	Works				
05.03.03.10.05.11	Laying cables in already prepared routes.	m	240	0,34	81,60
05.03.03.10.05.12	**Assembly, assembly and connection to the performed installation of the housing for storing the equipment of the system with the installation and connection of the equipment**	**pcs**	**1**	**0,00**	**0,00**
05.03.03.10.05.13	Installation and connection to the performed installation of the reader	pcs	3	0,00	0,00
05.03.03.10.05.14	Installation and connection to the performed installation of buttons for permanent / temporary unlocking of electromagnetic holders	pcs	6	0,00	0,00
05.03.03.10.05.15	Mounting and connection to the performed installation of the electromagnetic holder	pcs	3	0,00	0,00
05.03.03.10.05.16	Measurement and testing of the performed installation	set	1	0,00	0,00
	IN TOTAL:	set	2		81,60
	TOTAL ACCESS CONTROL SYSTEM:				**163,20**

6	**BURGLAR SIGNALING SYSTEM**				
	Works				
05.03.03.10.06.13	Laying cables in already prepared routes.	m	200	0,34	68,00
05.03.03.10.06.14	**Assembly, assembly and connection to the performed installation of the housing for storing the equipment of the system with the installation and connection of the equipment**	**pcs**	**1**	**0,00**	**0,00**
05.03.03.10.06.15	Mounting and connection to the performed installation of the motion sensor	pcs	3	0,00	0,00
05.03.03.10.06.16	Installation and connection to the performed installation of glass breakage detectors	pcs	1	0,00	0,00
05.03.03.10.06.17	Installation and connection to the performed installation of alarm sirens	pcs	1	0,00	0,00
05.03.03.10.06.18	Installation and connection to the performed keyboard installation	pcs	3	0,00	0,00
05.03.03.10.06.19	Measurement and testing of the performed installation	set	1	0,00	0,00
	IN TOTAL:	set	2		68,00
	TOTAL BURGLAR SIGNALING SYSTEM:				**136,00**
7	**AUTOMATIC FIRE ALARM SYSTEM**				
	Material				
05.03.03.10.07.15	Halogen free installation corrugated hose with all fittings and clamps and clamps (3pcs / 1m), (installation in the building), (Dietzel Univolt FX) or equivalent. Outside diameter:				
	- Ø40	m	40	0,50	20,00
	- Ø36	m	190	0,33	62,70
	- Ø16	m	50	0,15	7,50
	Works				
	Assembly and installation of cabinets and installation of equipment in the cabinet	**pcs**	**1**	**0,00**	**0,00**
05.03.03.10.07.19	Installation of installation pipes in the wall / ceiling / suspended ceiling / double floor, with wall tuning, perforation of openings, installation of junction boxes.	m	280	1,77	495,60
05.03.03.10.07.20	Laying cables in already prepared routes.	m	200	0,34	68,00
05.03.03.10.07.21	All works on closing the penetration of the installation with fire-fighting mixture (in accordance with the valid regulations) and coating of cables, pipes, ducts, etc. in the length of one meter on each side of the penetration.	m^2	2	125,00	250,00

05.03.03.10.07.22	Installation and connection to the installed installation of an addressable fire control panel	pcs	1	0,00	0,00
05.03.03.10.07.23	Mounting and connection to the installed relay module installation	pcs	2	0,00	0,00
05.03.03.10.07.24	Installation and connection to the installed battery installation	pcs	4	0,00	0,00
05.03.03.10.07.25	Installation and connection to the installed installation of the alarm machine	pcs	1	0,00	0,00
05.03.03.10.07.26	Mounting on the base and connecting to the installed installation of an addressable automatic detector	pcs	1	0,00	0,00
05.03.03.10.07.27	Installation and connection to the installed installation of a manual addressable detector	pcs	3	0,00	0,00
05.03.03.10.07.28	Installation and connection to the installed alarm siren installation	pcs	1	0,00	0,00
05.03.03.10.07.29	Mounting and connection to the installed installation of the input module	pcs	1	0,00	0,00
05.03.03.10.07.30	Installation and connection to the installed installation of the input module for connection to the substation	pcs	2	0,00	0,00
05.03.03.10.07.31	Installation and connection to the installed installation of an additional base for hanging fire detectors on non-standard surfaces (concrete beams, roof structure, uneven walls, ...), with all the necessary material	pcs	4	0,00	0,00
05.03.03.10.07.32	Measurement and testing of the performed installation	set	1	0,00	0,00
	IN TOTAL:	set	2		903,80
	TOTAL AUTOMATIC FIRE ALARM SYSTEM:				**1.807,60**
8	**STABLE FIRE ALARM SYSTEM WITH EXTINGUISHING MANAGEMENT**				
	Material				
05.03.03.10.08.15	Halogen free installation corrugated hose with all fittings and clamps and clamps (3pcs / 1m), (installation in the building), (Dietzel Univolt FX) or equivalent. Outside diameter:				
	- Ø40	m	10	0,50	5,00
	- Ø36	m	200	0,33	66,00
	- Ø16	m	50	0,15	7,50
	Works				
05.03.03.10.08.18	Installation of installation pipes in the wall / ceiling / suspended ceiling / double floor, with wall tuning, perforation of openings, installation of junction boxes.	m	260	1,77	460,20
05.03.03.10.08.19	Laying cables in already prepared routes.	m	400	0,34	136,00
05.03.03.10.08.20	All works on closing the penetration of the installation with fire-fighting mixture (in accordance with the valid regulations) and coating of cables, pipes, ducts, etc. in the length of one meter on each side of the penetration.	m²	2	125,00	250,00

05.03.03.10.08.21	Installation and connection to the installed control panel installation	pcs	2	0,00	0,00
05.03.03.10.08.22	Mounting on the base and connecting to the installed installation of the automatic detector	pcs	8	0,00	0,00
05.03.03.10.08.23	Installation and connection to the installed installation of the manual button	pcs	4	0,00	0,00
05.03.03.10.08.24	Installation and connection to the installed alarm siren installation	pcs	2	0,00	0,00
05.03.03.10.08.25	Installation and connection to the installed installation of the lighting panel	pcs	4	0,00	0,00
05.03.03.10.08.26	Installation and connection to the installed installation of a parallel indicator light	pcs	4	0,00	0,00
05.03.03.10.08.27	Installation and connection to the installed installation of a magnetic contact for monitoring the openness of fire doors	pcs	2	0,00	0,00
05.03.03.10.08.28	Installation, connection, adjustment of the aspiration detector	pcs	1	0,00	0,00
05.03.03.10.08.29	Assembly and installation of cabinets and installation of equipment in the cabinet	pcs	1	0,00	0,00
05.03.03.10.08.30	Measurement and testing of the performed installation	set	1	0,00	0,00
	IN TOTAL:	set	2		924,70
	TOTAL STABLE FIRE ALARM SYSTEM WITH EXTINGUISHING MANAGEMENT:				**1.849,40**
9	**ENVIRONMENTAL MONITORING SYSTEM**				
	Works				
05.03.03.10.09.09	Installation and connection of equipment to the performed installation	set	1	0,00	0,00
	IN TOTAL:	set	2		0,00
	TOTAL ENVIRONMENTAL MONITORING SYSTEM:				**0,00**
1	**MAIN CABLE ROUTES**				**3.043,00**
2	**COMMON COMPUTER NETWORK**				**2.192,80**
3	**VIDEO SECURITY SYSTEM**				**0,00**
4	**CLOCK SYSTEM**				**0,00**
5	**ACCESS CONTROL SYSTEM**				**163,20**
6	**BURGLAR SIGNALING SYSTEM**				**136,00**
7	**AUTOMATIC FIRE ALARM SYSTEM**				**1.807,60**
8	**STABLE FIRE ALARM SYSTEM WITH EXTINGUISHING MANAGEMENT**				**1.849,40**
9	**ENVIRONMENTAL MONITORING SYSTEM**				**0,00**
	Total (EUR):				**9.192,00**

BILL OF QUANTITIES

5 / 3.3.10 INFORMATION AND COMMUNICATION SYSTEMS - CHORTANOVCI TUNNEL

POWER STATIONS

Number	Description	Unit	Quantity	Unit price (EUR)	Price (EUR)
			A	B	AxB
NOTE 1. All items relating to material include delivery. 2. The specified types and manufacturers of individual parts of					
1	**MAIN CABLE ROUTES**				
	Material				
05.03.03.10.01.01	Halogen free installation corrugated hose with all fittings and clamps and clamps (3pcs / 1m), (installation in the building), (Dietzel Univolt FX) or equivalent. Outside diameter:				
	- Ø40	m	400	0,50	200,00
	- Ø36	m	500	0,33	165,00
	- Ø16	m	400	0,15	60,00
05.03.03.10.01.02	Fire-fighting mixture which with a fire barrier forms a compact whole from the aspect of the required fire resistance, with the appropriate certificate, in accordance with the valid legal regulations	m²	2	130,00	260,00
05.03.03.10.01.03	Small installation material (bag screws, arc clamps, dowels ...)	set	1	80,00	80,00
	Works				
05.03.03.10.01.04	Installation of installation pipes in the wall / ceiling / suspended ceiling / double floor, with wall tuning, perforation of openings, installation of junction boxes.	m	1300	1,77	2.301,00
05.03.03.10.01.05	All works on closing the penetration of the installation with fire-fighting mixture (in accordance with the valid regulations) and coating of cables, pipes, ducts, etc. in the length of one meter on each side of the penetration.	m²	2	125,00	250,00
	IN TOTAL:	pcs	2		**3.316,00**
	TOTAL MAIN CABLE ROUTES:				**6.632,00**

2	**COMMON COMPUTER NETWORK**				
	Works				
05.03.03.10.02.13	Assembly and installation of 19 "freestanding cabinet 42U with installation and connection of equipment	set	1	125,00	125,00
05.03.03.10.02.14	**Installation and connection of active network equipment with all necessary equipment**	**set**	**1**	**0,00**	**0,00**
05.03.03.10.02.15	Installation of adapter 45h45mm for installation in the parapet and / or built-in and / or floor socket and / or set complete with mounting module for installation	pcs	6	4,00	24,00
05.03.03.10.02.16	Mounting shielded micro socket cat.6a for mounting in a socket for a structured cabling system	pcs	12	1,05	12,60
05.03.03.10.02.17	Mounting a single socket for mounting in an IP equipment enclosure	pcs	7	1,05	7,35
05.03.03.10.02.18	Installation and connection of armored micro socket cat.6a	pcs	19	1,05	19,95
05.03.03.10.02.19	Laying copper cables in already prepared routes	m	600	0,34	204,00
05.03.03.10.02.20	Testing of copper lines of a common communication network with the development of measurement protocols	set	1	0,00	0,00
	TOTAL works:	set	2		**392,90**
	TOTAL COMMON COMPUTER NETWORK:				**785,80**
3	**VoIP COMMUNICATION SYSTEM**				
05.03.03.10.03.03	Installation of equipment with connection to the performed installation with all necessary equipment	set	1	0,00	0,00
	IN TOTAL:	pcs	2		0,00
	TOTAL VoIP COMMUNICATION SYSTEM:				**0,00**
4	**VIDEO SECURITY SYSTEM**				
	Works				
05.03.03.10.04.05	**Installation and connection to the installed installation of the dome camera**	**pcs**	**6**	**0,00**	**0,00**
05.03.03.10.04.06	**Mounting and connection to the installed installation of the dome camera adapter**	**pcs**	**5**	**0,00**	**0,00**
	IN TOTAL:	set	2		0,00
	TOTAL VIDEO SECURITY SYSTEM:				**0,00**

5	**CLOCK SYSTEM**				
	Works				
05.03.03.10.05.04	Installation and connection to the performed installation of a one-sided analog secondary clock for indoor installation	pcs	1	13,00	13,00
05.03.03.10.05.05	Mounting bracket for one-sided and two-sided clock with a diameter of 30 cm for indoor mounting	pcs	1	10,50	10,50
	IN TOTAL:	set	2		**23,50**
	TOTAL CLOCK SYSTEM:				**47,00**
6	**ACCESS CONTROL SYSTEM**				
	Works				
05.03.03.10.06.11	Laying cables in already prepared routes.	m	850	0,34	289,00
05.03.03.10.06.12	**Assembly, assembly and connection to the performed installation of the housing for storing the equipment of the system with the installation and connection of the equipment**	**pcs**	**1**	**0,00**	**0,00**
05.03.03.10.06.13	Installation and connection to the performed installation of the reader	pcs	4	0,00	0,00
05.03.03.10.06.14	Installation and connection to the performed installation of buttons for permanent / temporary unlocking of electromagnetic holders	pcs	8	0,00	0,00
05.03.03.10.06.15	Mounting and connection to the performed installation of the electromagnetic holder	pcs	4	0,00	0,00
05.03.03.10.06.16	Measurement and testing of the performed installation	set	1	0,00	0,00
	IN TOTAL:	set	2		289,00
	TOTAL ACCESS CONTROL SYSTEM:				**578,00**

7	**BURGLAR SIGNALING SYSTEM**				
	Works				
05.03.03.10.07.15	Laying cables in already prepared routes.	m	350	0,34	119,00
05.03.03.10.07.16	**Assembly, assembly and connection to the performed installation of the housing for storing the equipment of the system with the installation and connection of the equipment**	**pcs**	**1**	**0,00**	**0,00**
05.03.03.10.07.17	Mounting and connection to the performed installation of the motion sensor	pcs	4	0,00	0,00
05.03.03.10.07.18	Installation and connection to the performed installation of glass breakage detectors	pcs	4	0,00	0,00
05.03.03.10.07.19	Installation and connection to the performed installation of alarm sirens	pcs	2	0,00	0,00
05.03.03.10.07.20	Installation and connection to the performed keyboard installation	pcs	2	0,00	0,00
05.03.03.10.07.21	Measurement and testing of the performed installation	set	1	0,00	0,00
	IN TOTAL:	set	2		119,00
	TOTAL BURGLAR SIGNALING SYSTEM:				**238**
8	**AUTOMATIC FIRE ALARM SYSTEM:**				
	Material				
05.03.03.10.08.14	Halogen free installation corrugated hose with all fittings and clamps and clamps (3pcs / 1m), (installation in the building), (Dietzel Univolt FX) or equivalent. Outside diameter:				
	- Ø40	m	50	0,50	25,00
	- Ø36	m	230	0,33	75,90
	- Ø16	m	200	0,15	30,00
	Works				
05.03.03.10.08.18	Installation of installation pipes in the wall / ceiling / suspended ceiling / double floor, with wall tuning, perforation of openings, installation of junction boxes.	m	480	1,77	849,60
05.03.03.10.08.19	Laying cables in already prepared routes.	m	330	0,34	112,20
05.03.03.10.08.20	All works on closing the penetration of the installation with fire-fighting mixture (in accordance with the valid regulations) and coating of cables, pipes, ducts, etc. in the length of one meter on each side of the penetration.	m²	2	125,00	250,00

05.03.03.10.08.21	Installation and connection to the installed installation of an addressable fire control panel	pcs	1	0,00	0,00
05.03.03.10.08.22	Mounting and connection to the installed relay module installation	pcs	1	0,00	0,00
05.03.03.10.08.23	Installation and connection to the installed battery installation	pcs	4	0,00	0,00
05.03.03.10.08.24	Installation and connection to the installed installation of the alarm machine	pcs	1	0,00	0,00
05.03.03.10.08.25	Mounting on the base and connecting to the installed installation of an addressable automatic detector	pcs	15	0,00	0,00
05.03.03.10.08.26	Installation and connection to the installed installation of a manual addressable detector	pcs	4	0,00	0,00
05.03.03.10.08.27	Installation and connection to the installed alarm siren installation	pcs	2	0,00	0,00
05.03.03.10.08.28	Installation and connection to the installed installation of an additional base for hanging fire detectors on non-standard surfaces (concrete beams, roof structure, uneven walls, ...), with all the necessary material	pcs	14	0,00	0,00
05.03.03.10.08.29	Measurement and testing of the performed installation	set	1	0,00	0,00
	IN TOTAL:	set	2		1.342,70
	TOTAL AUTOMATIC FIRE ALARM SYSTEM:				2.685,40
1	MAIN CABLE ROUTES				6.632,00
2	COMMON COMPUTER NETWORK				785,80
3	VoIP COMMUNICATION SYSTEM				0,00
4	VIDEO SECURITY SYSTEM				0,00
5	CLOCK SYSTEM				47,00
6	ACCESS CONTROL SYSTEM				578,00
7	BURGLAR SIGNALING SYSTEM				238,00
8	AUTOMATIC FIRE ALARM SYSTEM:				2.685,40
	Total (EUR):				10.966,20

BILL OF QUANTITIES

5/3.3.10 DESIGN OF INFORMATION-COMMUNICATION SYSTEMS IN CORTANOVCI TUNNEL

No.	Description of works	Unit of measure	Quantity	Unit price (EUR)	Price (EUR)
			A	B	AxB
1	**MAIN CABLE ROUTES**				
	Material				
05.03.03.10.01.01	Halogen-free installation corrugated hose with all fittings and connecting elements and clamps (3 pcs/1m),				
	- Ø40	m	150	0,50	75,00
	- Ø36	m	200	0,33	66,00
	- Ø16	m	150	0,15	22,50
05.03.03.10.01.02	A fire stop compound that makes a compact unit with fire bar from the aspect of the required fire resistance,	m²	2	125,00	250,00
05.03.03.10.01.03	Small sundry installation material (truss screws, U-clamps, expansion shields...)	set	1	120,00	120,00
	Works				
05.03.03.10.01.04	Installation of pipes in the wall / ceiling / suspended ceiling / raised floor, with chiseling the walls, punching	m	500	1,77	885,00
05.03.03.10.01.05	All the works on closing the penetrations of the systems and facilities with firestop compound (in accordance with	m²	1	125,00	125,00
	TOTAL MAIN CABLE ROUTES:				**1.543,50**
2	**COMMON COMMUNICATION NETWORK**				
	Works				
05.03.03.10.02.15	Assembly and installation of freestanding 19" rack 21U with installation and connection of equipment	set	1	125,00	125,00
05.03.03.10.02.16	**Assembly and installation of PO-TK cabinet and connection of equipment**	**set**	**2**	**0,00**	**0,00**
05.03.03.10.02.17	**Installation and connection of active network equipment with all necessary equipment**	**set**	**1**	**0,00**	**0,00**
05.03.03.10.02.18	Installation of 45x45mm adapter intended for mounting in parapet and/or flush wall mounted	pcs	2	4,00	8,00
05.03.03.10.02.19	Installation of shielded micro socket cat.6a in the structured cabling system socket	pcs	4	1,05	4,20
05.03.03.10.02.20	Installation of the single socket intended for installation in housing of IP equipment	pcs	3	1,05	3,15
05.03.03.10.02.21	Installation and wiring of shielded micro socket cat.6a	pcs	7	1,05	7,35
05.03.03.10.02.22	Laying of copper cables in previously prepared routes	m	390	0,34	132,60
05.03.03.10.02.23	Testing of copper lines of the common communications network with the preparation of	set	1	0,00	0,00
	TOTAL COMMON COMMUNICATION NETWORK				**280,30**

4	**VIDEO SURVEILLANCE SYSTEM**				
	Works				
05.03.03.10.04.05	Mounting and connection of the dome camera to cable installation	pcs	3	0,00	0,00
05.03.03.10.04.06	Mounting and connection of the dome camera adapter to cable installation	pcs	1	0,00	0,00
	TOTAL VIDEO SURVEILLANCE SYSTEM:				**0,00**
5	**ACCESS CONTROL SYSTEM**				
	Works				
05.03.03.10.05.11	Laying of cables in previously prepared routes	m	200	0,34	68,00
05.03.03.10.05.12	Assembly, installation and connection to the completed system of the box for housing the system	pcs	1	0,00	0,00
05.03.03.10.05.13	Mounting and connection of the reader to the cable installation	pcs	1	0,00	0,00
05.03.03.10.05.14	Mounting and connection of the button for permanent/temporary release of electromagnetic holders	pcs	2	0,00	0,00
05.03.03.10.05.15	Mounting and connection of the electromagnetic holder to the cable installation	pcs	1	0,00	0,00
05.03.03.10.05.16	Measuring and testing of the completed installation	set	1	0,00	0,00
	TOTAL ACCESS CONTROL SYSTEM:				**68,00**
6	**INTRUSION DETECTION SYSTEM**				
	Works				
05.03.03.10.06.08	Laying of cables in previously prepared routes	m	150	0,34	51,00
05.03.03.10.06.09	Mounting and connection of the motion detector to the cable installation	pcs	1	0,00	0,00
05.03.03.10.06.10	Mounting and connection of the glass break detector to the cable installation	pcs	1	0,00	0,00
05.03.03.10.06.11	Mounting and connection of the alarm siren to the cable installation	pcs	1	0,00	0,00
05.03.03.10.06.12	Mounting and connection of the keypad to the cable installation	pcs	1	0,00	0,00
05.03.03.10.06.13	Measuring and testing of the completed installation	set	1	0,00	0,00
	TOTAL INTRUSION DETECTION SYSTEM:				**51,00**
7	**AUTOMATIC FIRE ALARM SYSTEM (AFD-FAS)**				
05.03.03.10.07.08	Halogen-free corrugated installation hose with all fittings and connecting elements and clamps (3 pcs/1m),				
	- Ø40	m	10	0,50	5,00
	- Ø36	m	100	0,33	33,00
	- Ø16	m	50	0,15	7,50

	Works				
05.03.03.10.07.12	Assembly and mounting of the cabinet and installation of equipment in the cabinet	pcs	2	125,00	250,00
05.03.03.10.07.13	Installation of pipes in the wall / ceiling / suspended ceiling / raised floor, with chiseling the walls, punching	m	160	1,77	283,20
05.03.03.10.07.14	Laying of cables in previously prepared routes	m	320	0,34	108,80
05.03.03.10.07.15	All the works on closing the penetrations of the systems and facilities with firestop compound (in accordance with	m²	1	125,00	125,00
05.03.03.10.07.16	**Mounting on the base and connection of addressable automatic detector to the cable**	**pcs**	**1**	**0,00**	**0,00**
05.03.03.10.07.17	**Mounting and connection of addressable call point to the cable installation**	**pcs**	**2**	**0,00**	**0,00**
05.03.03.10.07.18	**Mounting and connection of the alarm siren to the cable installation**	**pcs**	**1**	**0,00**	**0,00**
05.03.03.10.07.19	**Mounting and connection to the cable installation of additional base for fixing the fire detectors on non-**	**pcs**	**1**	**0,00**	**0,00**
05.03.03.10.07.20	**Measuring and testing of the completed installation**	**set**	**1**	**0,00**	**0,00**
	TOTAL AUTOMATIC FIRE ALARM SYSTEM (AFD-FAS):				**812,50**
1	**MAIN CABLE ROUTES**				**1.543,50**
2	**COMMON COMMUNICATION NETWORK**				**280,30**
4	**VIDEO SURVEILLANCE SYSTEM**				**0,00**
5	**ACCESS CONTROL SYSTEM**				**68,00**
6	**INTRUSION DETECTION SYSTEM**				**51,00**
7	**AUTOMATIC FIRE ALARM SYSTEM (AFD-FAS)**				**812,50**
	TOTAL(EUR):				**2.755,30**

BILL OF QUANTITIES
BILL OF QUANTITIES

5 / 3.6 INFORMATION AND COMMUNICATION SYSTEMS - BUILDING NO. 4 ABOVE THE UNDERPASS IN SREMSKI KARLOVCI

No.	Description	Unit	Quantity	Unit price (EUR)	Price (EUR)
			A	B	AxB
NOTE 1. All items relating to material include delivery. 2. The specified types and manufacturers of individual parts of					
2	**MAIN CABLE ROUTES**				
	Material				
05.03.06.02.01	Perforated shielded sheet steel cable tray. Set with mounting accessories and elements for horizontal and vertical turns and mounting in a suspended ceiling / ceiling, cross section 200mm x 50mm.	m	120	5,15	618,00
05.03.06.02.02	Self-adhesive plastic ducts without halogen elements dimensions:				
	- 16x16x1000mm	m	10	2,66	26,60
	- 16x40x1000mm	m	10	4,33	43,30
05.03.06.02.03	Halogen free installation corrugated hose with all fittings and clamps and clamps (3pcs / 1m), (installation in the building), (Dietzel Univolt FX) or equivalent. Outside diameter:				
	- Ø40	m	1500	0,50	750,00
	- Ø36	m	2000	0,33	660,00
	- Ø16	m	1500	0,15	225,00
05.03.06.02.04	Installation ribbed hose with all fittings and clamps and clamps (3pcs / 1m), (off-site installation), (Dietzel Univolt FX) or equivalent. Outside diameter:				
	- Ø40	m	100	0,50	50,00
	- Ø36	m	650	0,33	214,50
05.03.06.02.05	Procurement and delivery of fire-fighting mixture. Calculated with an average penetration size of 0.3x0.3 m	m^2	2	125,00	250,00
05.03.06.02.06	Small installation material (bag screws, arc clamps, dowels ...)	set	1	150,00	150,00

	Works				
05.03.06.02.7	Installation of cable racks in the suspended ceiling / on the wall	m	120	0,65	78,00
05.03.06.02.8	Installation of self-adhesive plastic channels with all necessary works.	m	20	0,43	8,60
05.03.06.02.9	Installation of installation pipes in the wall / ceiling / suspended ceiling / double floor, with wall sealing, hole punching, installation of junction boxes.	m	5000	1,77	8.850,00
05.03.06.02.10	Installation of installation pipes in lighting poles and in the canopy	m	750	1,35	1.012,50
05.03.06.02.11	All works on closing the penetration of the installation with fire-fighting mixture (in accordance with the valid regulations) and coating of cables, pipes, ducts, etc. in the length of one meter on each side of the penetration.	m^2	2	125,00	250,00
	TOTAL MAIN CABLE ROUTES:				**13.186,50**
3	**COMMON COMPUTER NETWORK**				
	Works				
05.03.06.03.29	Assembly and installation of 19 "freestanding cabinet 42U with installation and connection of equipment	set	1	125,00	125,00
05.03.06.03.30	Assembly and installation of 19 "freestanding cabinet 22U with installation and connection of equipment	set	2	80,00	160,00
05.03.06.03.31	**Installation and connection of active network equipment with all necessary equipment**	**set**	**1**	**0,00**	**0,00**
05.03.06.03.32	Installation of adapter 45h45mm for installation in the parapet and / or built-in and / or floor socket and / or set complete with mounting module holder	pcs	40	4,00	160,00
05.03.06.03.33	Mounting shielded micro socket cat.6a for mounting in a socket for a structured cabling system	pcs	80	1,05	84,00
05.03.06.03.34	Installation of a wall-mounted single socket for mounting in a suspended ceiling for IP equipment	pcs	18	1,05	18,90
05.03.06.03.35	Mounting a single socket for mounting in an IP equipment enclosure	pcs	18	1,05	18,90
05.03.06.03.36	Installation and connection of armored micro socket cat.6a	pcs	36	1,05	37,80
05.03.06.03.37	Laying copper cables in already prepared routes	m	6130	0,34	2.084,20

05.03.06.03.40	Testing of copper lines of a common communication network with the development of measurement protocols	set	1	0,00	0,00
05.03.06.03.41	Measurements before laying on an optical cable with 8 o. v. (by cable length)	set	25	0,00	0,00
05.03.06.03.42	Measurements after laying on an optical cable with 8 o. v. (by cable length)	set	30	0,00	0,00
05.03.06.03.43	Final measurements on an optical cable with 8 o. v. with the development of the protocol of final measurements on the optical cable on the measuring section without extensions	set	50	0,00	0,00
05.03.06.03.44	Commissioning of all equipment (basic functionality with checking of all network points)	set	1	0,00	0,00
05.03.06.03.45	Equipment integration (basic functionality with checking all network points) and testing with the consent of the Owner / Investor	set	1	0,00	0,00
	TOTAL COMMON COMPUTER NETWORK:				**2.688,80**
4	**VIDEO SECURITY SYSTEM**				
	Works				
05.03.06.04.09	Installation and connection to the installed installation of the dome camera	pcs	26	0,00	0,00
05.03.06.04.10	Mounting and connection to the installed installation of the dome camera adapter	pcs	11	0,00	0,00
05.03.06.04.11	Installation and connection to the installed workstation installation	pcs	1	0,00	0,00
05.03.06.04.12	Mounting and connecting to the installed monitor installation	pcs	2	0,00	0,00
05.03.06.04.13	Assembly and connection to the installed installation of management and storage devices	pcs	1	0,00	0,00
05.03.06.04.14	Installation and connection to the installed extension installation	pcs	1	0,00	0,00
	TOTAL VIDEO SECURITY SYSTEM:				**0,00**

5	**AUTOMATIC FIRE ALARM SYSTEM**				
	Material				
05.03.06.05.19	Halogen free installation corrugated hose with all fittings and clamps and clamps (3pcs / 1m), (installation in the building), (Dietzel Univolt FX) or equivalent. Outside diameter:				
	- Ø40	m	20	0,50	10,00
	- Ø36	m	2000	0,33	660,00
	- Ø16	m	2500	0,15	375,00
	Works				
05.03.06.05.22	Installation of installation pipes in the wall / ceiling / suspended ceiling / double floor, with wall sealing, hole punching, installation of junction boxes.	m	4520	1,77	8.000,40
05.03.06.05.23	Laying cables in already prepared routes.	m	4300	0,34	1.462,00
05.03.06.05.24	All works on closing the penetration of the installation with fire-fighting mixture (in accordance with the valid regulations) and coating of cables, pipes, ducts, etc. in the length of one meter on each side of the penetration.	m²	2	125,00	250,00
05.03.06.05.25	**Installation and connection to the installed installation of an addressable fire control panel**	**pcs**	**1**	**0,00**	**0,00**
05.03.06.05.26	**Mounting and connection to the installed relay module installation**	**pcs**	**2**	**0,00**	**0,00**
05.03.06.05.27	**Installation and connection to the installed battery installation**	**pcs**	**4**	**0,00**	**0,00**
05.03.06.05.28	**Installation and connection to the installed installation of the alarm machine**	**pcs**	**1**	**0,00**	**0,00**
05.03.06.05.29	**Mounting on the base and connecting to the installed installation of an addressable automatic detector**	**pcs**	**94**	**0,00**	**0,00**
05.03.06.05.30	**Installation and connection to the installed installation of a manual addressable detector**	**pcs**	**13**	**0,00**	**0,00**
05.03.06.05.31	**Installation and connection to the installed alarm siren installation**	**pcs**	**12**	**0,00**	**0,00**
05.03.06.05.32	**Installation and connection to the installed installation of the parallel indicator light**	**pcs**	**21**	**0,00**	**0,00**
05.03.06.05.33	**Mounting and connection to the installed installation of the input module**	**pcs**	**5**	**0,00**	**0,00**

05.03.06.05.34	Installation and connection to the installed installation of a magnetic contact for monitoring the openness of fire doors	pcs	7	0,00	0,00
05.03.06.05.35	Installation and connection to the installed installation of an additional base for hanging fire detectors on non-standard surfaces (concrete beams, roof structure, uneven walls, ...), with all the necessary material	pcs	18	0,00	0,00
05.03.06.05.36	Installation and connection to the installed installation of a metal bracket for hanging a fire detector on a sloping roof, with all the necessary material	pcs	14	0,00	0,00
05.03.06.05.37	Installation and connection to the installed installation of a conventional linear smoke detector	pcs	2	0,00	0,00
05.03.06.05.38	Mounting and connection to the installed installation of the module for connecting conventional linear detectors in the LSN loop	pcs	2	0,00	0,00
05.03.06.05.39	Measurement and testing of the performed installation	set	1	0,00	0,00
	TOTAL AUTOMATIC FIRE ALARM SYSTEM:				**10.757,40**
6	**SOS SYSTEM**				
	Material				
	Works				
05.03.06.06.08	Laying cables in already prepared routes.	m	50	0,34	17,00
05.03.06.06.09	Assembly, assembly and connection to the performed installation of the central panel	pcs	1	0,00	0,00
05.03.06.06.10	Installation and connection to the performed installation of the call-resolution combination	pcs	1	0,00	0,00
05.03.06.06.11	Installation and connection to the performed installation of a room signal lamp	pcs	1	0,00	0,00
05.03.06.06.12	Installation and connection to the performed installation of the SOS pushbutton complete with mounting equipment	pcs	1	0,00	0,00
05.03.06.06.13	Assembly and connection to the performed installation of the junction box	pcs	1	0,00	0,00
05.03.06.06.14	Measurement and testing of the performed installation	set	1	0,00	0,00
	TOTAL SOS SYSTEM:				**17,00**

7	**Introduction of cables owned by Telekom Srbija a.d.**				
	Material				
05.03.06.07.02	Halogen free installation corrugated hose with all fittings and clamps and clamps (3pcs / 1m), (installation in the building), (Dietzel Univolt FX) or equivalent. Outside diameter:				
	- Ø40	m	10	0,50	5,00
	- Ø36	m	50	0,33	16,50
	Works				
05.03.06.07.05	**Assembly and installation of a built-in cabinet and installation of equipment in the cabinet**	**pcs**	**1**	**0,00**	**0,00**
05.03.06.07.06	Making the introduction to the building with 2xPVC Ø110 pipes, with the installation of pipes and all the necessary materials and works	set	1	300,00	300,00
05.03.06.07.07	Installation of installation pipes in the wall / ceiling / suspended ceiling / double floor, with wall sealing, hole punching, installation of junction boxes.	m	60	1,77	106,20
05.03.06.07.08	Laying cables in already prepared routes.	m	160	0,34	54,40
05.03.06.07.09	Protection of the existing introduction to the building	set	1	125,00	125,00
05.03.06.07.10	**Design and preparation of documentation**	**set**	**1**	**0,00**	**0,00**
	TOTAL INTRODUCTION OF CABLES:				**607,10**
2	**MAIN CABLE ROUTES**				**13.186,50**
3	**COMMON COMPUTER NETWORK**				**2.688,80**
4	**VIDEO SECURITY SYSTEM**				**0,00**
5	**AUTOMATIC FIRE ALARM SYSTEM**				**10.757,40**
6	**SOS SYSTEM**				**17,00**
7	**Introduction of cables owned by Telekom Srbija a.d.**				**607,10**
	Total (EUR):				**27.256,80**